Issue 44
PS
1956 Series
THE PREVENTIVE MAINTENANCE MONTHLY
OIL SUNTAN SOOTHING
BEAT THE HEAT with
PREVENTIVE MAINTENANCE
SEE PAGE 21
Will Eisner

GOT IT

Dear Editor,
Boy, we've finally got it made!

All these years of beating my brains out in motor pool shops and warring with the drivers, and now I land in a shop where the first echelon work actually gets done, done right, and done on time.

Here's why: these drivers in the 5th AAA Group are permanently assigned to their vehicles.

It's wonderful, I kid you not. No arguments about who does what, or who didn't do what or who's to blame for the shape the machine is in. One truck, one driver. And, being he's exempt from details like KP, Guard, CQ, etc., he's happy, and works like hell to stay driving. Minute we find a meatball, we turn loose of him fast. He ends up on the duty roster and we get an eager beaver to take his place.

Honest, you'd have to see it to believe it, the way these guys clean and polish their cars, or massage their trucks. And every time a driver watches the bull gang unload his truck, he sees that he's got a good thing, so he busts his knobs to keep it by using his time for better operation and maintenance of that truck.

Why in heck doesn't the rest of the Army get on to this system??

Sergeant E.D.B.
Camp Hanford, Wash.

(Ed Note—Looks like a permanent driver could be assigned to every vehicle. Everybody who tries it swears it gives the best possible results.)

GOT IT MADE

Dear Editor,
Boy, we've finally got it made!

All these years of beating my brains out in motor pool shops and warring with the drivers, and now I land in a shop where the first echelon work actually gets done, done right, and done on time.

Here's why: these drivers in the 5th AAA Group are permanently assigned to their vehicles.

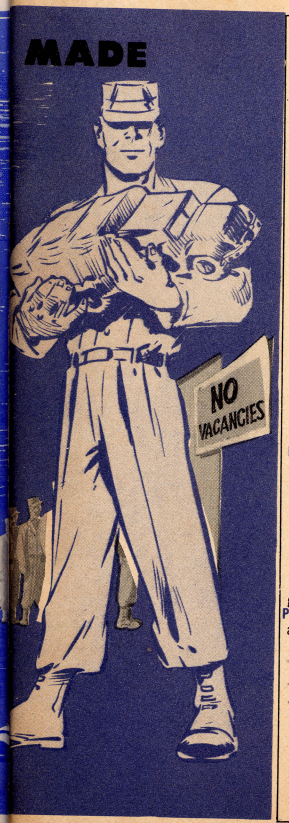
It's wonderful, I kid you not. No arguments about who does what, or who didn't do what or who's to blame for the shape the machine is in. One truck, one driver. And, being he's exempt from details like KP, Guard, CQ, etc., he's happy, and works like hell to stay driving. Minute we find a meatball, we turn loose of him fast. He ends up on the duty roster and we get an eager beaver to take his place.

Honest, you'd have to see it to believe it, the way these guys clean and polish their cars, or massage their trucks. And every time a driver watches the bull gang unload his truck, he sees that he's got a good thing, so he busts his knobs to keep it by using his time for better operation and maintenance of that truck.

Why in heck doesn't the rest of the Army get on to this system??

Sergeant E.D.B.
Camp Hanford, Wash.

(Ed Note—Looks like a permanent driver could be assigned to every vehicle. Everybody who tries it swears it gives the best possible results.)



PS MAGAZINE

Issue No. 44 — 1956 Series

Published by the Department of the Army for the information of organizational maintenance and supply personnel. Distribution is made through normal publication channels. Within limitations of availability, older issues may be obtained direct from Preventive Maintenance Agency, Raritan Arsenal, Metuchen, New Jersey.

IN THIS ISSUE

FEATURE ARTICLES

Your Warranty's A Good Deal	2
Hydra-Matic Lube—An Open Book	4
Protect Your Rubber	6
Connie's Summertime Check List (Cartoon Section)	21
Cutting Down On The Paper Pile	39
Check Your Machine Gun	40
Crane Operation (Engineers)	45

DEPARTMENTS

Half-Mast	32
Connie Rodd	35
Armament	40
Engineers	44
Publications	48
Connie Rodd's Briefs	49

PS Magazine wants your ideas and contributions, and is glad to answer your questions. Just write to:Sgt Half-Mast, PS Magazine, Raritan Arsenal, Metuchen, New Jersey. Names and addresses are kept in confidence.

The printing of PS Magazine, the PREVENTIVE MAINTENANCE MONTHLY, is approved by the Director, Bureau of the Budget (4 Aug. 53), and is distributed as follows: DISTRIBUTION: ACTIVE ARMY: Gen Staff, DA (1) except DCSPER (2); SS, DA (1); Tec Svc, DA (5) except COFENGR (75), COFORD (275); Admin & Tec Svc Bd (5); Hq CONARC (10); OS Maj Comd (5); OS Base Comd (3); MDW (5); Armies (50); Corps (3); Div (2) except Armd Div (100), Tng Div (50); Brig (3); Regt/Gp (3); Bn (5); Co (18) except Cml Co (8), Med Co (8), QM Co (8); Ft & Cp (6); Gen & Br Svc Sch (5) except Engr Sch (100), Ord Sch (25); USMA (25); Joint Sch (5); Specialist Sch (5); PMST (3) except PMST Ord ROTC Units (25); Gen Depots (5); Sup Sec, Gen Depots (5); Depots (5); AH (5); RTC (100), Trans Terminal Comd (3); Army Terminal (3); OS Sup Agencies (2); PG (5); Arsenals (25); DB (25); Cruit Main Sta (3); Div Engr (2); Dist Engr (20). NG: State AG Special List. USAR: Mil Dist Snecial List. For explanation of abbreviations used see SR 320-50-1

PS MAGAZINE

Issue No. 44 — 1956 Series

Published by the Department of the Army for the information of organizational maintenance and supply personnel. Distribution is made through normal publication channels. Within limitations of availability, older issues may be obtained direct from Preventive Maintenance Agency, Raritan Arsenal, Metuchen, New Jersey.

IN THIS ISSUE

FEATURE ARTICLES

Your Warranty's A Good Deal	2
Hydra-Matic Lube—An Open Book	4
Protect Your Rubber	6
Connie's Summertime Check List (Cartoon Section)	21
Cutting Down On The Paper Pile	39
Check Your Machine Gun	40
Crane Operation (Engineers)	45

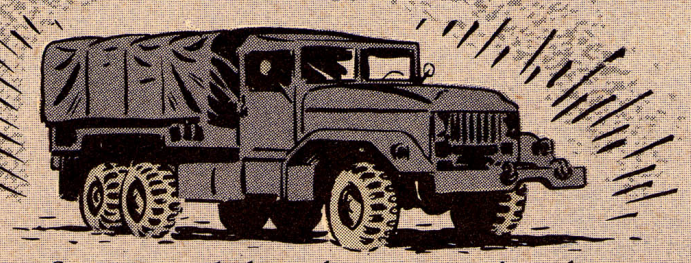
DEPARTMENTS

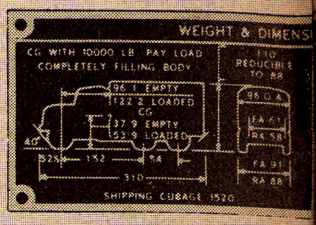
Half-Mast	32
Connie Rodd	35
Armament	40
Engineers	44
Publications	48
Connie Rodd's Briefs	49

PS Magazine wants your ideas and contributions, and is glad to answer your questions. Just write to: Sgt Half-Mast, PS Magazine, Raritan Arsenal, Metuchen, New Jersey. Names and addresses are kept in confidence.

The printing of PS Magazine, the PREVENTIVE MAINTENANCE MONTHLY, is approved by the Director, Bureau of the Budget (4 Aug. 53), and is distributed as follows: DISTRIBUTION: ACTIVE ARMY: Gen Staff, DA (1) except DCSPER (2); SS, DA (1); Tec Svc, DA (5) except COFENGR (75), COFORD (275); Admin & Tec Svc Bd (5); Hq CONARC (10); OS Maj Comd (5); OS Base Comd (3); MDW (5); Armies (50); Corps (3); Div (2) except Armd Div (100), Tng Div (50); Brig (3); Regt/Gp (3); Bn (5); Co (18) except Cml Co (8), Med Co (8), QM Co (8); Ft & Cp (6); Gen & Br Svc Sch (5) except Engr Sch (100), Ord Sch (25); USMA (25); Joint Sch (5); Specialist Sch (5); PMST (3) except PMST Ord ROTC Units (25); Gen Depots (5); Sup Sec, Gen Depots (5); Depots (5); AH (5); RTC (100); Trans Terminal Comd (3); Army Terminal (3); OS Sup Agencies (2); PG (5); Arsenals (25); DB (25); Cruit Main Sta (3); Div Engr (2); Dist Engr (20). NG: State AG Special List. USAR: Mil Dist Special List. For explanation of abbreviations used see SR 320-50-1

Economy Insurance Is Spelled— W-A-R-





Seems people have been screaming about economy for a long time, but still very few of them know the ins-and-outs of saving money for Uncle Sam.

A mighty big cog in this economy wheel is that warranty which each truck has tagged on it when it rolls off the assembly line. That warranty is Uncle Sam's insurance that if anything goes wrong with your new truck during a certain period of time he won't have to foot the bill—it'll be the manufacturer's responsibility.

But it goes a little further than that. A warranty is also **your** insurance that the equipment you get is the best possible ever built. If a certain part of your new truck goes bad within that warranty period, that part is given a going over after you turn it in to determine why it went bad.

So, you see, those warranties are important things to know about. All the manufacturers that make your tactical transport-type automotive vehicles have a contract with the government which reads something like this:

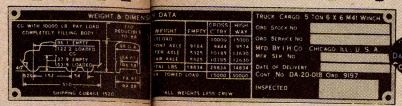
"...the contractor (meaning the manufacturer) will be required to guarantee each vehicle, component units and parts thereof against defective material and workmanship for a period of **one year** *from the date of acceptance—exclusive of time in transit of vehicles shipped to locations outside the continental limits of the United States—or* **4,000** *miles, whichever may occur first."*

Putting it simply, all this means that your tactical wheeled vehicle and all its parts are guaranteed for one year or 4,000 miles, whichever hits first.

Now, this one-year period starts the minute the vehicle is delivered to the Army—it doesn't start when the vehicle reaches you. In other words, let's say a brand-new 5-ton truck is delivered to an Ordnance depot from the factory. For some reason or other this truck stays at the depot for 60 days before it's handed over to you, the driver. This means that as far as you're concerned, you've got 10 months or 4,000 miles, whichever comes first, to make sure that

Economy Insurance Is Spelled—

W-A-R-R-A-N-T-Y



Seems people have been screaming about economy for a long time, but still very few of them know the ins-and-outs of saving money for Uncle Sam.

A mighty big cog in this economy wheel is that warranty which each truck has tagged on it when it rolls off the assembly line. That warranty is Uncle Sam's insurance that if anything goes wrong with your new truck during a certain period of time he won't have to foot the bill—it'll be the manufacturer's responsibility.

But it goes a little further than that. A warranty is also **your** insurance that the equipment you get is the best possible ever built. If a certain part of your new truck goes bad within that warranty period, that part is given a going over after you turn it in to determine why it went bad.

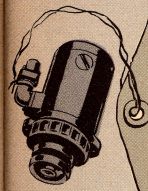
So, you see, those warranties are important things to know about. All the manufacturers that make your tactical transport-type automotive vehicles have a contract with the government which reads something like this:

"...the contractor (meaning the manufacturer) will be required to guarantee each vehicle, component units and parts thereof against defective material and workmanship for a period of **one year** *from the date of acceptance—exclusive of time in transit of vehicles shipped to locations outside the continental limits of the United States—or* **4,000** *miles, whichever may occur first."*

Putting it simply, all this means that your tactical wheeled vehicle and all its parts are guaranteed for one year or 4,000 miles, whichever hits first.

Now, this one-year period starts the minute the vehicle is delivered to the Army—it doesn't start when the vehicle reaches you. In other words, let's say a brand-new 5-ton truck is delivered to an Ordnance depot from the factory. For some reason or other this truck stays at the depot for 60 days before it's handed over to you, the driver. This means that as far as you're concerned, you've got 10 months or 4,000 miles, whichever comes first, to make sure that truck's tip-top and hitting on all six. You'll find the date of delivery of the truck to the Army on the truck's nomenclature plate.

Now, let's say you take that 5-ton out for a run and something goes wrong—the generator kaputs on you, for example. The first thing you do is take that part off (have Ordnance support do this for any part you're not authorized to fool with), clean it up and put on a tag that has this dope on it —



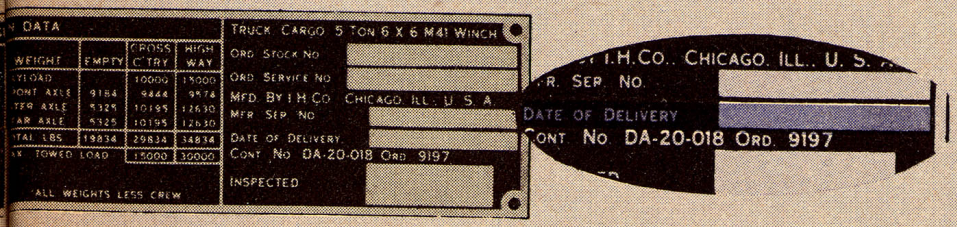
1. Name of your post or installation.
2. The vehicle serial number and USA registration number.
3. Date the vehicle was delivered—take a gander at your vehicle nomenclature plate.
4. Contract number—this too is stamped on the nomenclature plate.
5. The mileage on the vehicle.
6. The reason why you took the part off—give a good account of what went wrong with the part, its nomenclature, its part number and the date you took the part off the vehicle or the date you first noted the part was bugging out.
7. Mark the tag "Defective Warranty Part."

After you've done this, take the part back to supply and turn it in. But draw a new part as soon as you can so you won't have to deadline your truck. In other words, don't wait until the bad part is inspected—get a new one. The longer you wait, the longer your truck will be tied up.

Then, get yourself a UER and start making it out according to AR 700-38 (1 Nov 55). Turn it in, and you've done your job. From there on out, the people concerned with seeing that the warrantied part is replaced will take over.

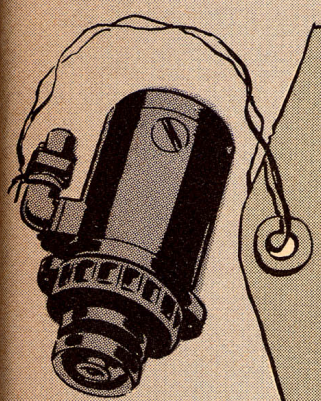
SB 9-98 series gives the whole poop on these warranties. The one you tactical truck drivers will be interested in is SB 9-98-24. Most of the rest in the series deal with commercial-type vehicles.

-R-A-N-T-Y



truck's tip-top and hitting on all six. You'll find the date of delivery of the truck to the Army on the truck's nomenclature plate.

Now, let's say you take that 5-ton out for a run and something goes wrong —the generator kaputs on you, for example. The first thing you do is take that part off (have Ordnance support do this for any part you're not authorized to fool with), clean it up and put on a tag that has this dope on it —



1. Name of your post or installation.
2. The vehicle serial number and USA registration number.
3. Date the vehicle was delivered—take a gander at your vehicle nomenclature plate.
4. Contract number—this too is stamped on the nomenclature plate.
5. The mileage on the vehicle.
6. The reason why you took the part off—give a good account of what went wrong with the part, its nomenclature, its part number and the date you took the part off the vehicle or the date you first noted the part was bugging out.
7. Mark the tag "Defective Warranty Part."

After you've done this, take the part back to supply and turn it in. But draw a new part as soon as you can so you won't have to deadline your truck. In other words, don't wait until the bad part is inspected—get a new one. The longer you wait, the longer your truck will be tied up.

Then, get yourself a UER and start making it out according to AR 700-38 (1 Nov 55). Turn it in, and you've done your job. From there on out, the people concerned with seeing that the warrantied part is replaced will take over.

SB 9-98 series gives the whole poop on these warranties. The one you tactical truck drivers will be interested in is SB 9-98-24. Most of the rest in the series deal with commercial-type vehicles.

YOUR HYDRA-MATIC LUBE'S AN OPEN BOOK

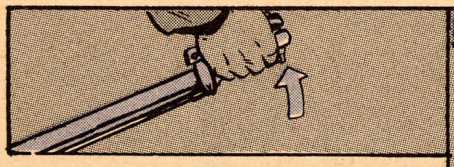
Yup, it sure can tell you a lot. For example, next time you dip your stick into that 2½-ton Hydra-Matic transmission to check the lube level and a "Eau de Hen-House" perfumey odor slaps you across the nostrils, beware, brother, beware.

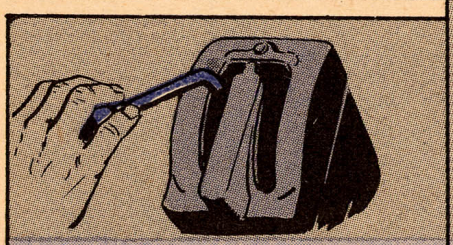
In case you never whiffed this kind of agricultural smell, burnt cork mixed with oil is what to sniff for. There are clutch discs and bands in your transmission which are lined with cork—a barnyard smell usually means that these discs or bands are burning.

There's another way to check this condition. Take a long look at the fluid itself—it should be clear. If it's a dirty-looking dark brown, you've got a case.

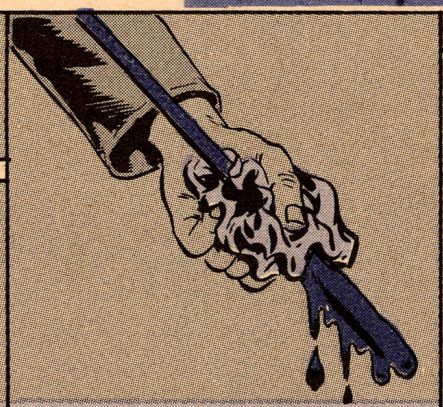
If one or both of these conditions are fizzling your truck, deadline the baby and have Ordnance give it a medical. Repairs that'll normally cost $4 or $5 can multiply into hundreds if the condition continues.

HERE'S THE WAY TO

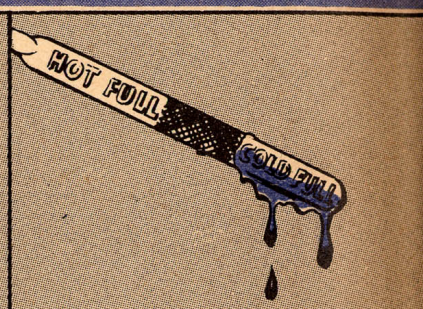




You can start with a hot or cold transmission. Start the truck, set the handbrake tight (transfer case in neutral) and shift into F-1 High Range.



Let the engine idle for three-to-five minutes and, while still at idle, pull out the dipstick, wipe it off with a clean rag, stick it back in and pull it out again to get your reading.



The oil level should be at the **cold** mark if you haven't run your truck for a while. If your truck's been running **more** than the idle warm-up time of three-to-five minutes, the oil mark should show **hot full.**

YOUR HYDRA-MATIC LUBE'S AN OPEN BOOK

Yup, it sure can tell you a lot. For example, next time you dip your stick into that 2½-ton Hydra-Matic transmission to check the lube level and a "Eau de Hen-House" perfumey odor slaps you across the nostrils, beware, brother, beware.

In case you never whiffed this kind of agricultural smell, burnt cork mixed with oil is what to sniff for. There are clutch discs and bands in your transmission which are lined with cork—a barnyard smell usually means that these discs or bands are burning.

There's another way to check this condition. Take a long look at the fluid itself—it should be clear. If it's a dirty-looking dark brown, you've got a case.

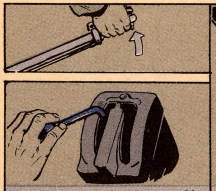
If one or both of these conditions are fizzling your truck, deadline the baby and have Ordnance give it a medical. Repairs that'll normally cost $4 or $5 can multiply into hundreds if the condition continues.

While on this subject of checking your Hydra-Matic fluid level, LO 9-8024 (14 June 55) lays down new rules on how to do it. LO 9-819A, which was the word before LO 9-8024 hit the field, said to check this transmission while it's in neutral. No dice—the transmission has to be in F-1 High Range with the handbrake set tight. Also, forget about what PS 39, page 26 said about checking the oil level. Some type got mixed up.

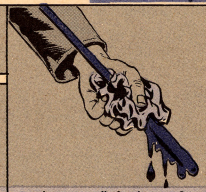
Seems that you'll get a reading that's higher than the actual level of the transmission fluid with the transmission lever set in **N** (neutral position) as your engine idles during the level check. The front drum that houses the clutch has a nasty habit of throwing oil up against the dipstick.

That LO 9-8024 has a lot of good dope in it—dope that you'll need to keep your Hydra-Matic truck in tip-top shape. Check to see if you've got your copy. If not, ask for it and cite the "need-to-know basis" paragraph in AR 310-90. You can also see this dope in TM 9-8024 (Oct 55).

HERE'S THE WAY TO CHECK THAT LUBE LEVEL

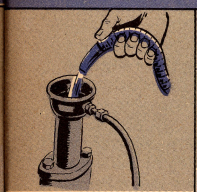


You can start with a hot or cold transmission. Start the truck, set the handbrake tight (transfer case in neutral) and shift into F-1 High Range.

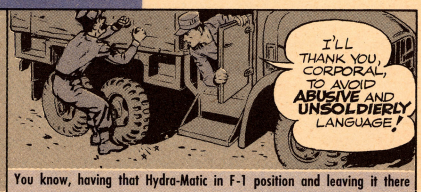


Let the engine idle for three-to-five minutes and, while still at idle, pull out the dipstick, wipe it off with a clean rag, stick it back in and pull it out again to get your reading.

The oil level should be at the **cold** mark if you haven't run your truck for a while. If your truck's been running **more** than the idle warm-up time of three-to-five minutes, the oil mark should show **hot full.**



If you need fluid, keep the engine at idle and add it. Keep checking that level as you put fluid in—you don't want too much flowing around in there.



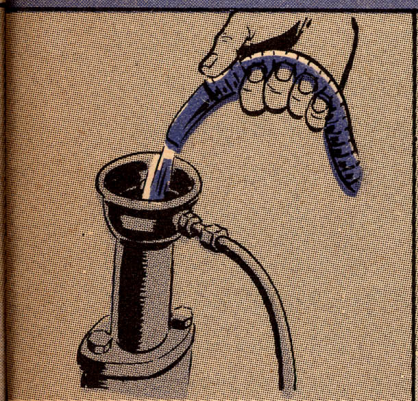
You know, having that Hydra-Matic in F-1 position and leaving it there while you check around the truck can be a mite dangerous, even with the hand brake set and transfer case in neutral. It'd be best to have a buddy help you with your checks—while one makes them, the other can sit in the cab of the vehicle and make sure the truck doesn't suddenly decide to go for a ride. See TB 9-8024-1 about this.

While on this subject of checking your Hydra-Matic fluid level, LO 9-8024 (14 June 55) lays down new rules on how to do it. LO 9-819A, which was the word before LO 9-8024 hit the field, said to check this transmission while it's in neutral. No dice—the transmission has to be in F-1 High Range with the handbrake set tight. Also, forget about what PS 39, page 26 said about checking the oil level. Some type got mixed up.

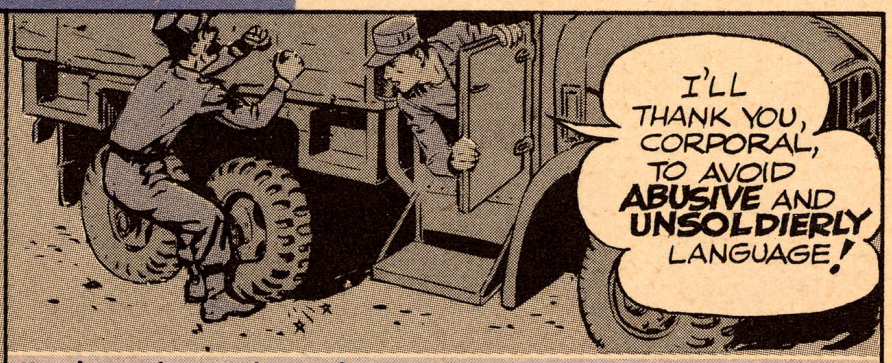
Seems that you'll get a reading that's higher than the actual level of the transmission fluid with the transmission lever set in N (neutral position) as your engine idles during the level check. The front drum that houses the clutch has a nasty habit of throwing oil up against the dipstick.

That LO 9-8024 has a lot of good dope in it—dope that you'll need to keep your Hydra-Matic truck in tip-top shape. Check to see if you've got your copy. If not, ask for it and cite the "need-to-know basis" paragraph in AR 310-90. You can also see this dope in TM 9-8024 (Oct 55).

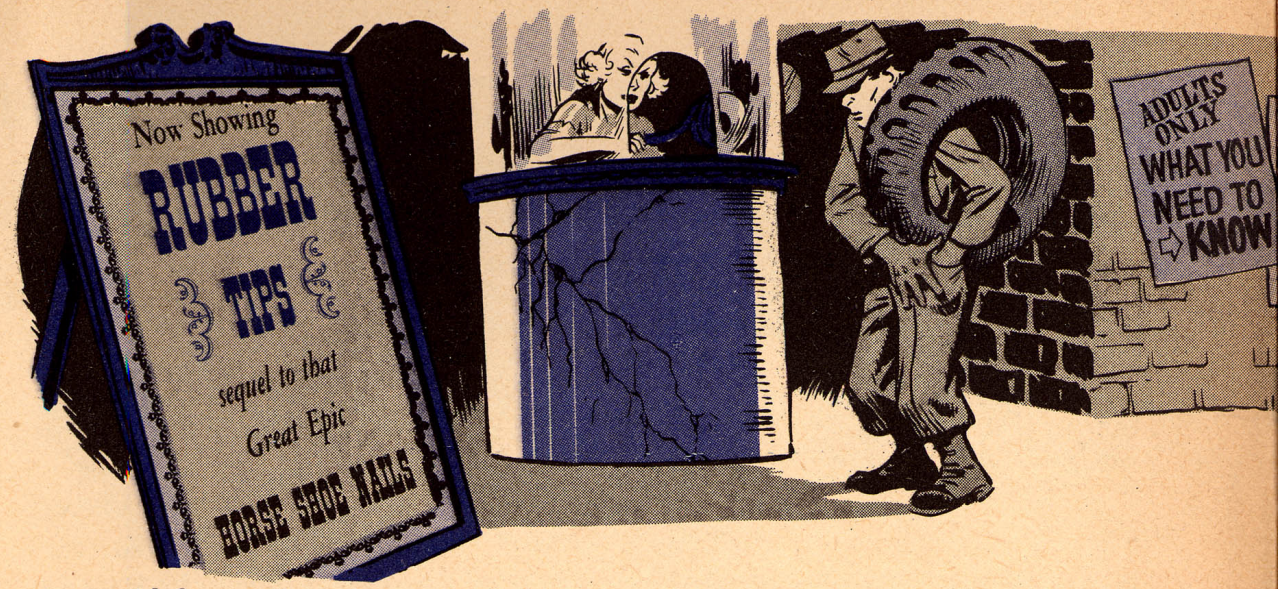
CHECK THAT LUBE LEVEL



If you need fluid, keep the engine at idle and add it. Keep checking that level as you put fluid in—you don't want too much flowing around in there.



You know, having that Hydra-Matic in F-1 position and leaving it there while you check around the truck can be a mite dangerous, even with the hand brake set and transfer case in neutral. It'd be best to have a buddy help you with your checks—while one makes them, the other can sit in the cab of the vehicle and make sure the truck doesn't suddenly decide to go for a ride. See TB 9-8024-1 about this.



In the old days, all an Army needed to get where it was going and back was a horse mounted on four U-shaped metal whattzits called "horse shoes." Today, horse shoes are something you throw at two pegs sticking out of the ground.

Since the Army truck has replaced the horse, and tires have replaced the horse shoe, a lot of guys take that rubber on their wheels for granted. The real facts are—you can take it for granted if you give them a little understanding. They're the best made but with a "treat 'em rough they can take it" attitude they're bound to bust a gut. Just give them their due and they'll keep your vehicle floating on air.

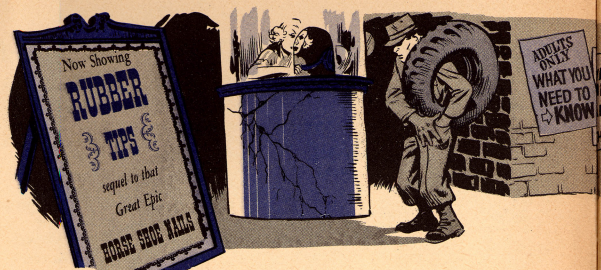
A tire is made up of the tread, breaker, cushion, plies of cord and bead wires. Each has its own job to do.

THIS WILL HELP YOU GET ACQUAINTED WITH THEM

Most of your tire parts—the breakers, the cords and the cushion—are built to take up road shock. If any of these parts bust a gut, that road shock is going to knock that tire right to tire heaven. Here's why—a tire weighing about 20 pounds carries a load nearly 50 times its own weight. When this tire travels about 45-MPH, a force of about a ton is built up trying to tear it apart. That tire has got to be on the beam to take that kind of treatment.

The best rule to follow is: if one of your tires looks suspicious, take it off and get a new one. You don't have to be ashamed of handing in a tire that has a small cut into the cords. Small cuts get bigger and deeper and soon it may be too late to save that tire. Cuts in the rubber only are not so serious.

Another rule—as soon as the tread design disappears in the center of the tire, or at most about ¾ of the way across the tread, get a new one. If you wear the tread too much, the tire can't be recapped. It has to be junked. Then again a smooth tire picks up a lot of nails, sharp stones, etc.



In the old days, all an Army needed to get where it was going and back was a horse mounted on four U-shaped metal whattzits called "horse shoes." Today, horse shoes are something you throw at two pegs sticking out of the ground.

Since the Army truck has replaced the horse, and tires have replaced the horse shoe, a lot of guys take that rubber on their wheels for granted. The real facts are—you can take it for granted if you give them a little understanding. They're the best made but with a "treat 'em rough they can take it" attitude they're bound to bust a gut. Just give them their due and they'll keep your vehicle floating on air.

A tire is made up of the tread, breaker, cushion, plies of cord and bead wires. Each has its own job to do.

THIS WILL HELP YOU GET ACQUAINTED WITH THEM

Most of your tire parts—the breakers, the cords and the cushion—are built to take up road shock. If any of these parts bust a gut, that road shock is going to knock that tire right to tire heaven. Here's why—a tire weighing about 20 pounds carries a load nearly 50 times its own weight. When this tire travels about 45-MPH, a force of about a ton is built up trying to tear it apart. That tire has got to be on the beam to take that kind of treatment.

The best rule to follow is: if one of your tires looks suspicious, take it off and get a new one. You don't have to be ashamed of handing in a tire that has a small cut into the cords. Small cuts get bigger and deeper and soon it may be too late to save that tire. Cuts in the rubber only are not so serious.

Another rule—as soon as the tread design disappears in the center of the tire, or at most about ¾ of the way across the tread, get a new one. If you wear the tread too much, the tire can't be recapped. It has to be junked. Then again a smooth tire picks up a lot of nails, sharp stones, etc.

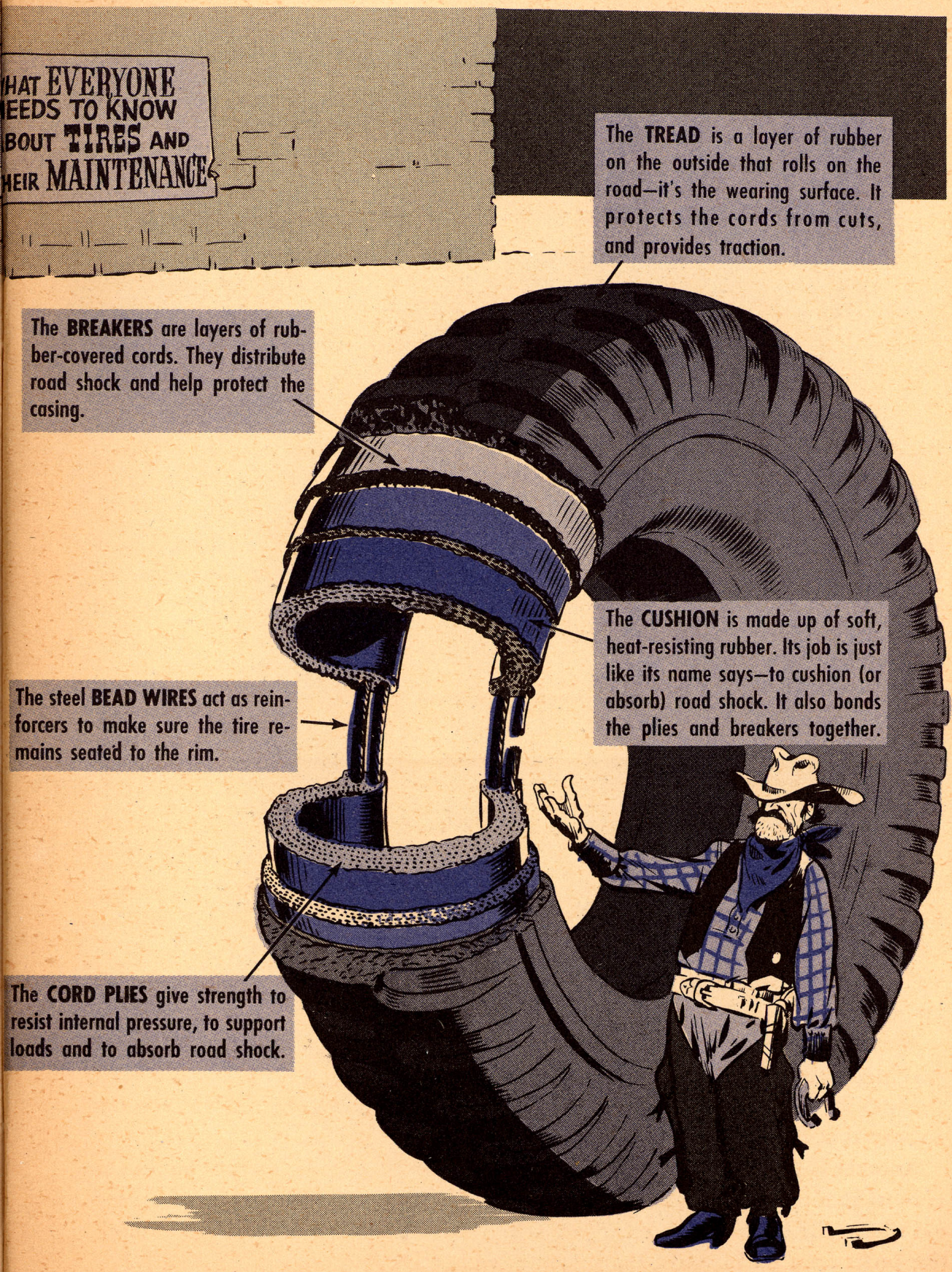
The **TREAD** is a layer of rubber on the outside that rolls on the road—it's the wearing surface. It protects the cords from cuts, and provides traction.

The **BREAKERS** are layers of rubber-covered cords. They distribute road shock and help protect the casing.

The **CUSHION** is made up of soft, heat-resisting rubber. Its job is just like its name says—to cushion (or absorb) road shock. It also bonds the plies and breakers together.

The steel **BEAD WIRES** act as reinforcers to make sure the tire remains seated to the rim.

The **CORD PLIES** give strength to resist internal pressure, to support loads and to absorb road shock.


WHAT EVERYONE NEEDS TO KNOW ABOUT TIRES AND THEIR MAINTENANCE
The TREAD is a layer of rubber on the outside that rolls on the road—it's the wearing surface. It protects the cords from cuts, and provides traction.
The BREAKERS are layers of rubber-covered cords. They distribute road shock and help protect the casing.
The CUSHION is made up of soft, heat-resisting rubber. Its job is just like its name says—to cushion (or absorb) road shock. It also bonds the plies and breakers together.
The steel BEAD WIRES act as reinforcers to make sure the tire remains seated to the rim.
The CORD PLIES give strength to resist internal pressure, to support loads and to absorb road shock.

BE ON THE LOOKOUT FOR THESE

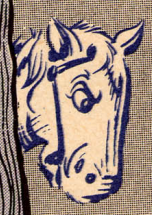
Certain things and conditions will turn a tire into nothing more than a flapper. These things and conditions are your tire's public enemies. It looks to you to harness these idjits. Here they are—

PUBLIC ENEMY MISUSED CHAINS

Wanted for Snowing Tires to Death.

Tire chains are needed when driving over snow and ice. Driving a truck with tire chains slapping against the dry pavement will knock the dickens out of both your tires and the chains.

Chains are made to creep on the tire so the links won't gouge into the rubber. Comes the first snow of the year, make sure these chains aren't too tight—you'll lose that creep. And, don't increase or decrease tire inflation to get the chains to fit right. That's like cutting off your big toe to fit a tight pair of shoes. Always get chains that are the right size.



PUBLIC ENEMY BAD DRIVING

Wanted for More Schooling.

Bad driving, brought on by "don't give a darn" drivers, is one of the chief causes of tire wear. Most times the other enemies can be stopped dead in their tracks if the driver is a good one.

Six sub-public enemies go into making up this baby. If a guy's got good driving on the brain, he won't think of trying any of these—not only for his tire's sake, but also because these things can knock his truck in the head.

These evil six are fast jack rabbit starts, heavy braking at high speeds and on downgrades, high speed turns, sharp cowboy-style turns at low speed, speeding cross-country and those fast slide-for-home stops.

Any one of these can knock your tires right into that tire junk pile. A lot of rubber will be left on the road—rubber you'll wish you had that one night in the boondocks when your tires decide that they've had enough and quit.

BE ON THE LOOKOUT FOR THESE

Certain things and conditions will turn a tire into nothing more than a flapper. These things and conditions are your tire's public enemies. It looks to you to harness these idjits. Here they are—

PUBLIC ENEMY MISUSED CHAINS

Wanted for Snowing Tires to Death.

Tire chains are needed when driving over snow and ice. Driving a truck with tire chains slapping against the dry pavement will knock the dickens out of both your tires and the chains.

Chains are made to creep on the tire so the links won't gouge into the rubber. Comes the first snow of the year, make sure these chains aren't too tight—you'll lose that creep. And, don't increase or decrease tire inflation to get the chains to fit right. That's like cutting off your big toe to fit a tight pair of shoes. Always get chains that are the right size.

PUBLIC ENEMY BAD DRIVING

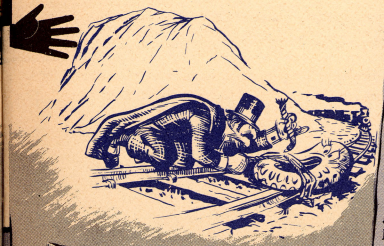
Wanted for More Schooling.

Bad driving, brought on by "don't give a darn" drivers, is one of the chief causes of tire wear. Most times the other enemies can be stopped dead in their tracks if the driver is a good one.

Six sub-public enemies go into making up this baby. If a guy's got good driving on the brain, he won't think of trying any of these—not only for his tire's sake, but also because these things can knock his truck in the head.

These evil six are fast jack rabbit starts, heavy braking at high speeds and on downgrades, high speed turns, sharp cowboy-style turns at low speed, speeding cross-country and those fast slide-for-home stops.

Any one of these can knock your tires right into that tire junk pile. A lot of rubber will be left on the road—rubber you'll wish you had that one night in the boondocks when your tires decide that they've had enough and quit.



PUBLIC ENEMY IMPACT

Wanted for Tire Beating.

This character's sneaky. He's the big rock in your truck's path when you least expect it. He's the deep rut on that "good" hard-surfaced road.

Most times impact can be stopped by taking it easy. For example, don't jump your load off a dump truck. Banging a tire against a curb or barrier so your load will flow faster is like playing Russian roulette with a fully-loaded pistol. Just tilt that load a little and let gravity do the rest.

When driving, keep your eyes peeled for those rocks, ruts and railroad crossings. Slow down when you come to them and, if you can't swing around them, take it easy going over them. Your tires are made of rubber, not heavy-duty steel.

PUBLIC ENEMY CUTS

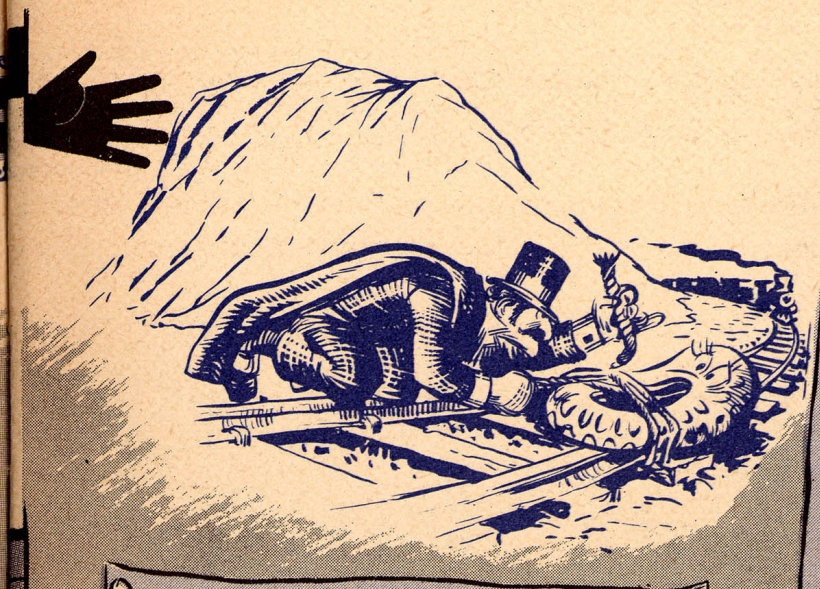
Wanted for Being a Gappy Character.

Sharp rocks and snags, deep ruts and chuck holes—they can all cut gashes into your tire until that rubber looks like a piece of Swiss cheese.

The smallest cuts may slice away half your tire's life. Keep your eyes peeled for them. If you spot a cut in your tread, get a screwdriver or tire probe and force it into the cut—be careful not to widen or deepen it. If the cut goes into the cord, turn that tire in and get a new one. Don't keep it for a spare.

The smallness of the cut isn't important—it's how deep it is that counts. When your tire picks up a spike, piece of glass or any object, check to see how deep the cut is. A deep cut lets dirt and water work into the cord body. This weakens the tire. Constant flexing also makes the break or cut deeper and bigger; that lets in more dirt and water.

Avoid cowboying a truck. Unnecessary driving over deep ruts and chuck holes is out. After you're through driving a truck see if any object is wedged between the tread; get it out. On your dual-wheeled jobs, clean out any stones or any other objects that you find wedged in the wheels.



PUBLIC ENEMY IMPACT

Wanted for Tire Beating.

This character's sneaky. He's the big rock in your truck's path when you least expect it. He's the deep rut on that "good" hard-surfaced road.

Most times impact can be stopped by taking it easy. For example, don't jump your load off a dump truck. Banging a tire against a curb or barrier so your load will flow faster is like playing Russian roulette with a fully-loaded pistol. Just tilt that load a little and let gravity do the rest.

When driving, keep your eyes peeled for those rocks, ruts and railroad crossings. Slow down when you come to them and, if you can't swing around them, take it easy going over them. Your tires are made of rubber, not heavy-duty steel.

PUBLIC ENEMY CUTS

Wanted for Being a Gappy Character.

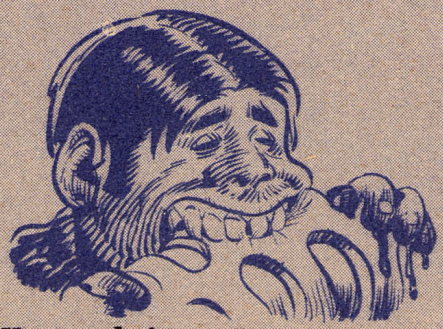
Sharp rocks and snags, deep ruts and chuck holes—they can all cut gashes into your tire until that rubber looks like a piece of Swiss cheese.

The smallest cuts may slice away half your tire's life. Keep your eyes peeled for them. If you spot a cut in your tread, get a screwdriver or tire probe and force it into the cut—be careful not to widen or deepen it. If the cut goes into the cord, turn that tire in and get a new one. Don't keep it for a spare.

The smallness of the cut isn't important—it's how deep it is that counts. When your tire picks up a spike, piece of glass or any object, check to see how deep the cut is. A deep cut lets dirt and water work into the cord body. This weakens the tire. Constant flexing also makes the break or cut deeper and bigger; that lets in more dirt and water.

Avoid cowboying a truck. Unnecessary driving over deep ruts and chuck holes is out. After you're through driving a truck see if any object is wedged between the tread; get it out. On your dual-wheeled jobs, clean out any stones or any other objects that you find wedged in the wheels.

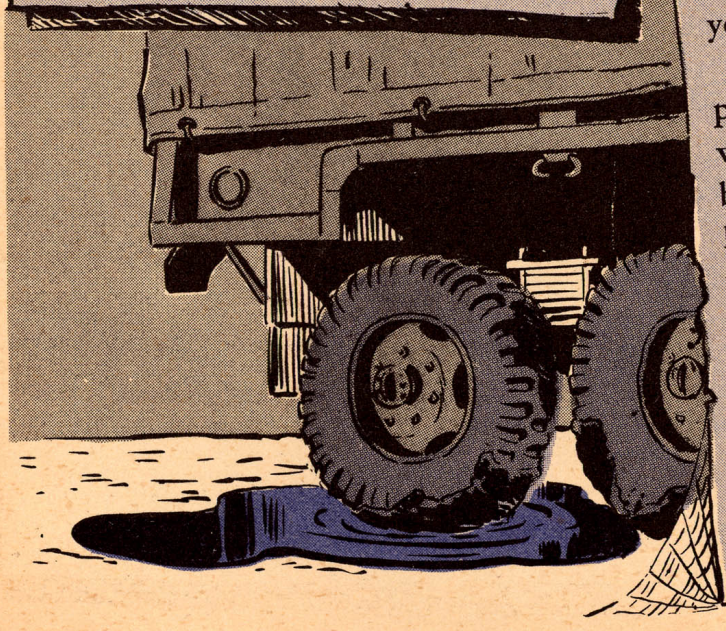
PUBLIC ENEMY GREASE



Wanted for Tire Eating.

Grease, oil or any petroleum product is hard on rubber—just deteriorates it. Try soaking a piece of rubber in oil, gas or grease and see what happens. The rubber gets soft and goes to pot fast.

Avoid parking your vehicle in grease or oil-soaked areas. Keep oil and grease cleaned off your tires.



PUBLIC ENEMY POOR VEHICLE MAINTENANCE

Wanted for Neglect, Resulting in Tire Expiration.

Poor maintenance of a vehicle is a sure-fire way of having your tires end up as door mats. For example, if a brake is out of whack or if the brake drums are not round, your tires will be scuffed away in one spot.

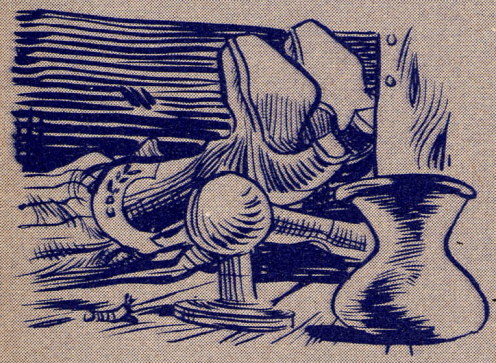
Parts that should be checked regularly for excessive play—causing rapid uneven tire wear—are wheel bearings, tie rods, drag links and spring shackles.

Make sure the adjustment on your clutch is right. Not only can it give you a stiff pain while driving, but a grabbing clutch starts your vehicle with a jolt, and you'll leave some of your rubber on the pavement.

Check for a leaky valve core by putting some spit on the valve and watching for bubbles. If you get bubbles, tighten the core. If it still leaks, replace it. Get the right one for the right assembly, and keep a cap on your valve cores. This cap keeps dirt out of the core—dirt that causes leaks.

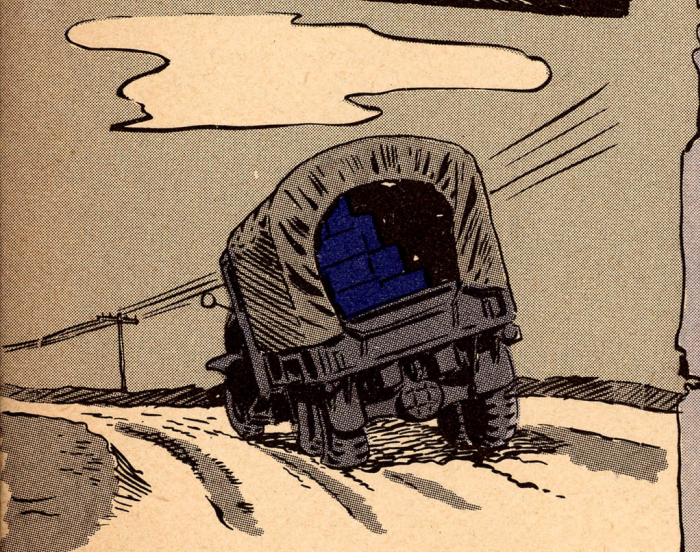
If you get a slow leak in your tube, get it fixed right away. A slow leak can become a fast one in a matter of a few miles.

PUBLIC ENEMY UNBALANCED LOADS



Wanted for Tire Crushing.

When it comes to tires, unbalanced loading is taboo because unequal weight distribution tends to be harder on the tires on the side which has the heavier load.



PUBLIC ENEMY WRONG INFLATION

Wanted for Lulling Tires into a False Sense of Security with a Lot of Hot Air.

Each tire has a specific amount of air pressure it's supposed to hold. Going below or above this air pressure can ruin a tire for good.

Here's what over-inflation of tires can do—

Bouncing wears the center of the tread faster than normal.

A tire gets more impact-breaks; that air is as hard as a rock.

Too much air stretches the tread, causes cracking.

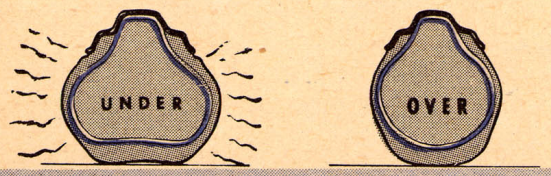
It increases tread separation.

With the rubber under tension, you can expect more snags and cuts.

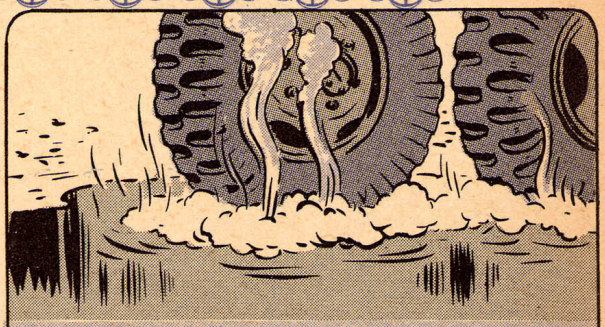
Your vehicle will ride harder and your equipment will need more shop maintenance to keep going.

You'll have less traction and skid resistance.

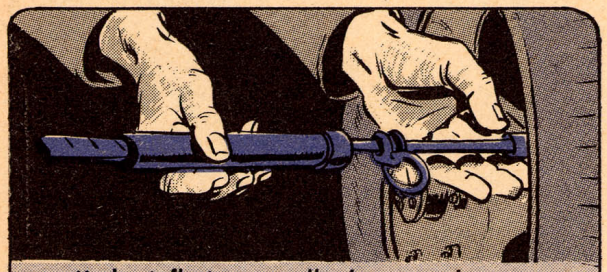
ABOUT THAT TIRE INFLATION



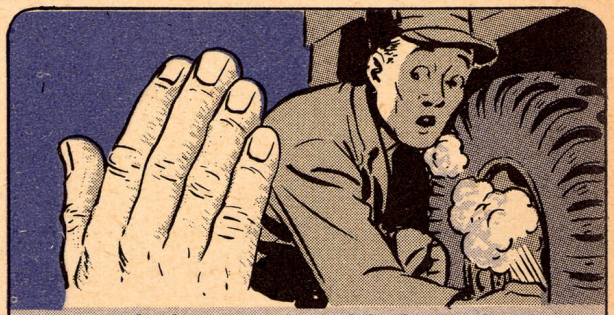
1. Under-inflation is worse than over-inflation. When a tire's under-inflated, it flexes more than usual in all directions and gets hot and goes to pot in a hurry.



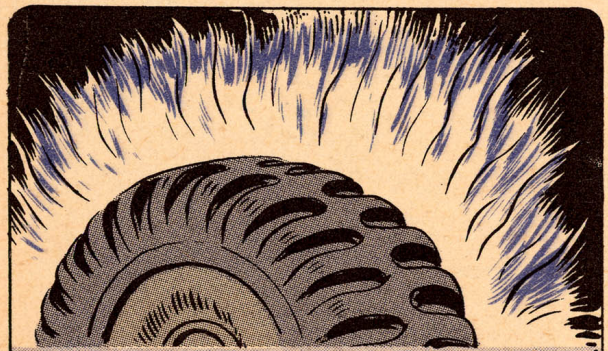
2. Under certain conditions (normal inflation on a hot day) a tire gets so hot its temperature goes above the boiling point of water.



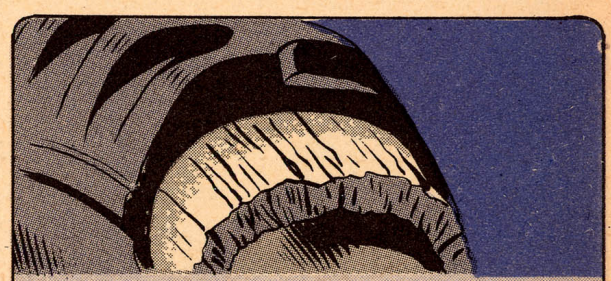
3. Under-inflation usually happens because a guy isn't familiar with the right way to check the air pressure. Let's say you start on a run with 70 lbs of pressure keeping you afloat. You drive a hundred miles or so and stop.



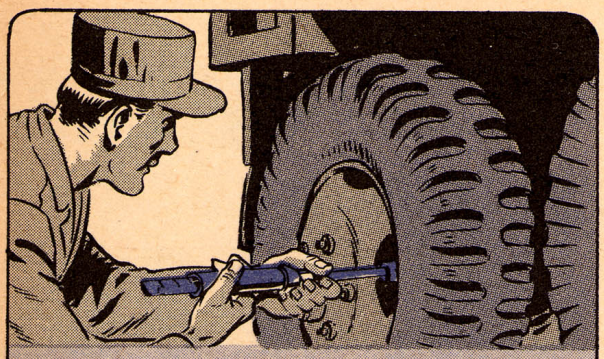
4. You check your tires and find that the pressure has increased—let's say about 10 lbs in each tire. Do you deflate your tires until the air gage again reads 70 lbs? **NO. LEAVE 'EM BE.**



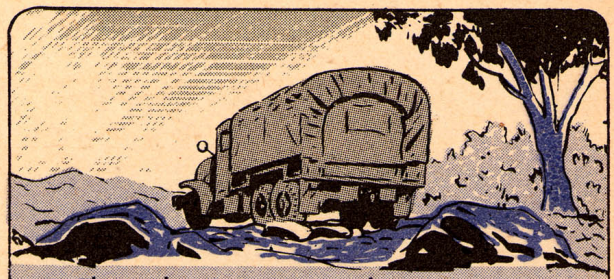
5. If a driver reduces the air pressure in his tires after driving a few hundred miles, that tire's going to flex and build up heat.



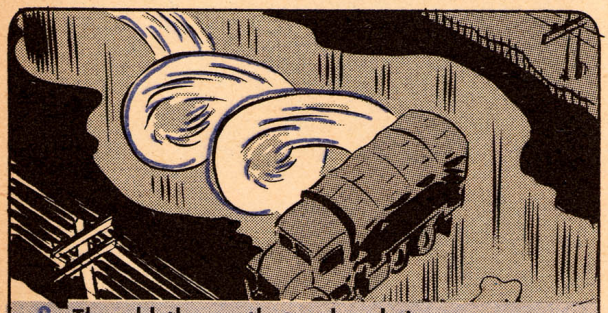
6. Heat destroys the elasticity of the rubber and is one of the chief causes of cord separation. As a tire keeps revolving, it picks up pressure. When you pull that pressure down, you're signing that tire's death warrant.



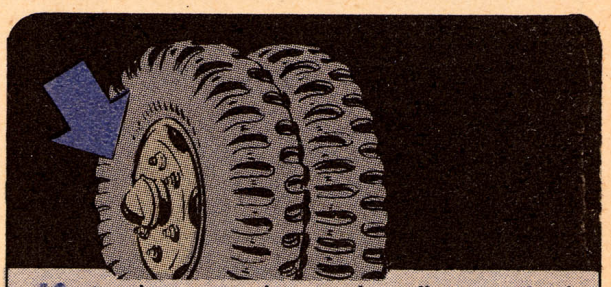
7. Air in tires should be checked only when the tires are cold—and at least once a day.



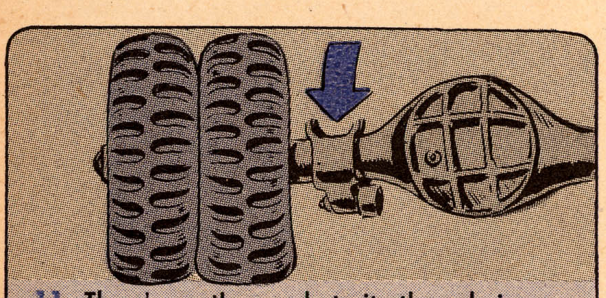
8. The only times you reduce tire pressure are when you have to go cross-country or over snow or sand. This reduction gives for better flotation. You can't travel fast, which will keep that heat down. But when you get back on hard-surfaced roads, that tire pressure should be increased again to its normal reading.



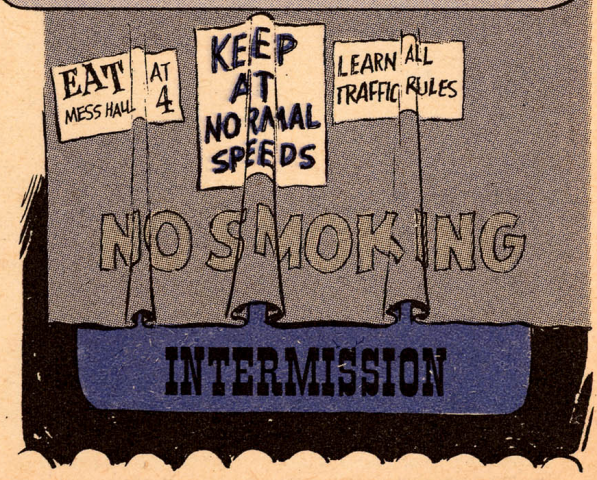
9. The old theory that reduced tire pressure on ice (if you haven't got tire chains) will prevent you from skidding is pure theory—don't try it. Lowering the tire pressure won't help you enough to compensate for the increased strain on the sidewalls and tread. The only answer for driving on ice without chains is to drive slowly and carefully.



10. Another point about under-inflation: Wheel bearings are built to carry a certain load. For example, the outer bearings on a dual-wheeled job, let's say, carry a 40 per cent load and the inner bearings a 60 per cent load. If the inner tire is under-inflated or goes flat, then the outer bearing carries most of the load. It's tough enough on the tires, but how about those bearings? Pure murder.

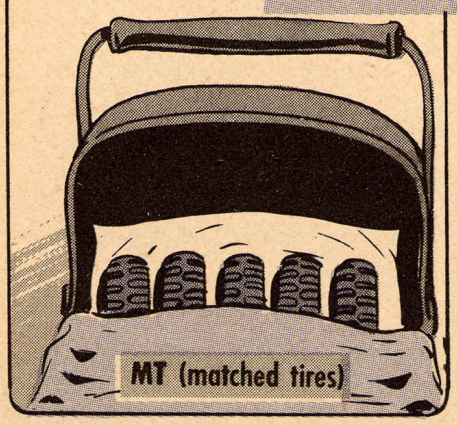


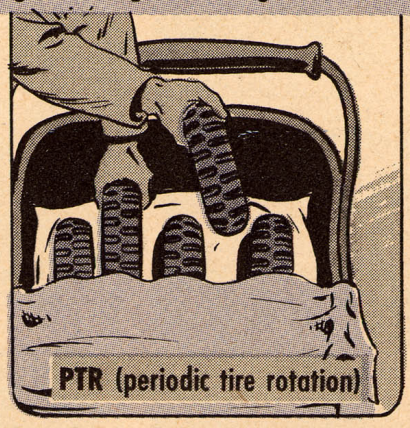
11. There's another angle to it—the axle is supposed to be supported by two tires on dual-wheeled trucks. When only one is in working order, the axle starts bending. Keep it like this long enough and you'll never get that bend out. That's when you'll really have troubles.

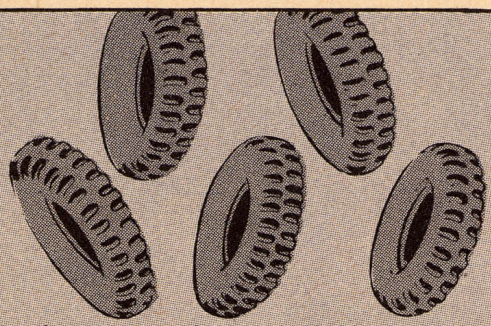


PROTECT

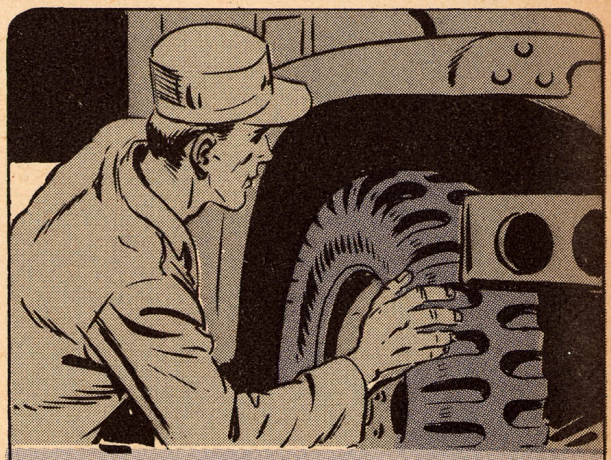
12. Three things'll protect your tires from its public enemies—all three work together to get the longest life out of a tire.



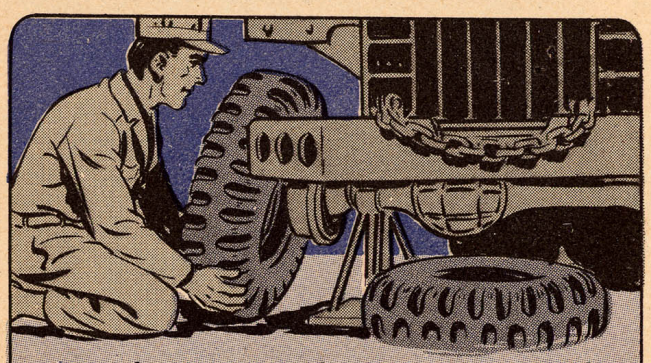




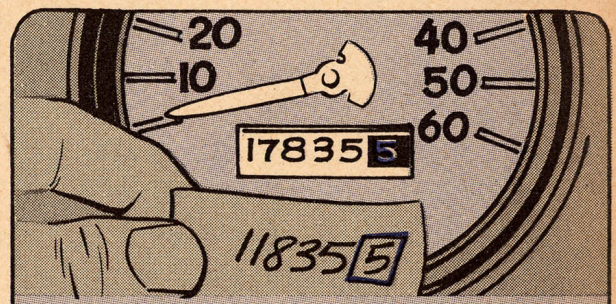
13. The purpose of rotating tires is to equalize wear.



14. Inspect your tires to see that they're wearing evenly and are properly matched every 2,000 miles.



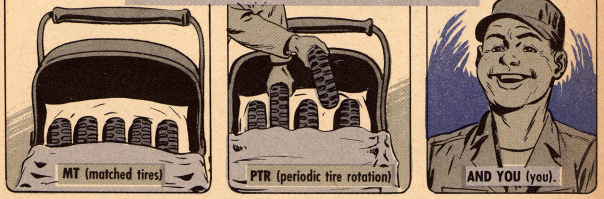
15. After you've made your inspection and measured your tires, you can then determine whether the tires have to be rotated. If your tires are wearing unevenly or don't match up, match them and rotate.

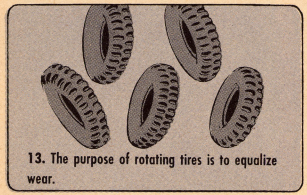


16. Rotate your tires every 6,000 miles—whether they're wearing evenly or not.

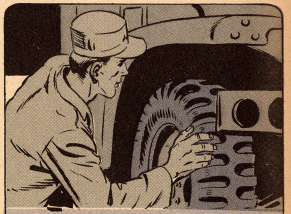
PROTECT YOUR TIRES

12. Three things'll protect your tires from its public enemies—all three work together to get the longest life out of a tire.

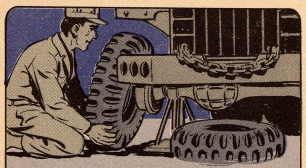




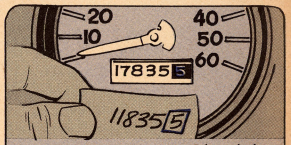
13. The purpose of rotating tires is to equalize wear.



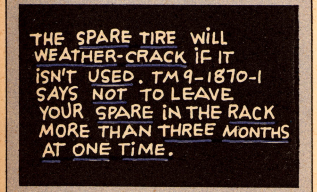
14. Inspect your tires to see that they're wearing evenly and are properly matched every 2,000 miles.



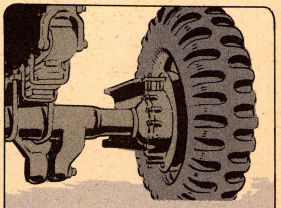
15. After you've made your inspection and measured your tires, you can then determine whether the tires have to be rotated. If your tires are wearing unevenly or don't match up, match them and rotate.



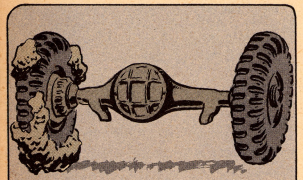
16. Rotate your tires every 6,000 miles—whether they're wearing evenly or not.



17.

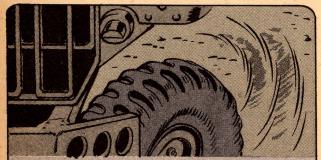


18. Your rear or power-driven tires wear faster than front ones. But because of bad front-ends...

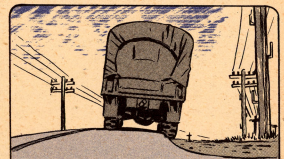


19. unbalanced wheels... (from caked mud)

20. sharp turns...



21. pivots and all sorts of things the front tire wear is uneven—cutting the life of those tires more than the rear ones.

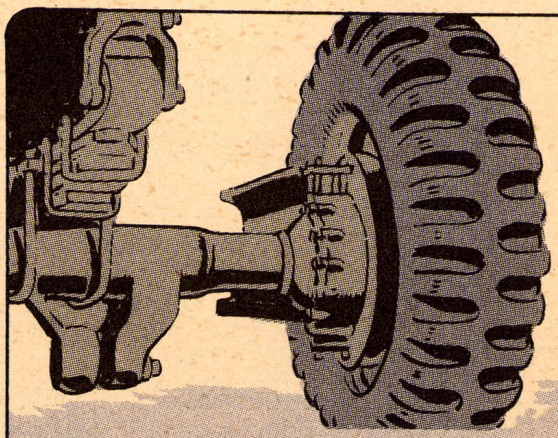


22. High crown roads and road shoulders cause more wear on tires on the right side of your vehicle than on the left.

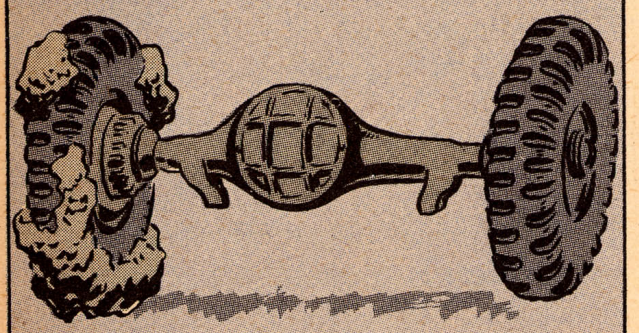
YOUR TIRES

THE SPARE TIRE WILL WEATHER-CRACK IF IT ISN'T USED. TM 9-1870-1 SAYS NOT TO LEAVE YOUR SPARE IN THE RACK MORE THAN THREE MONTHS AT ONE TIME.

17.

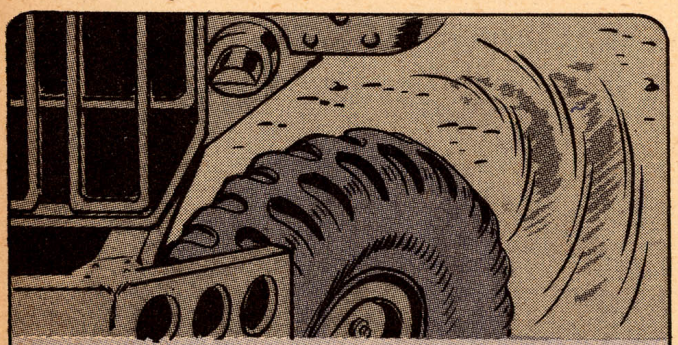


18. Your rear or power-driven tires wear faster than front ones. But because of bad front-ends...

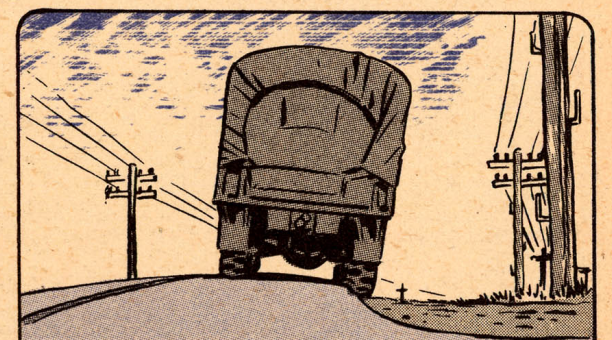


19. unbalanced wheels... (from caked mud)

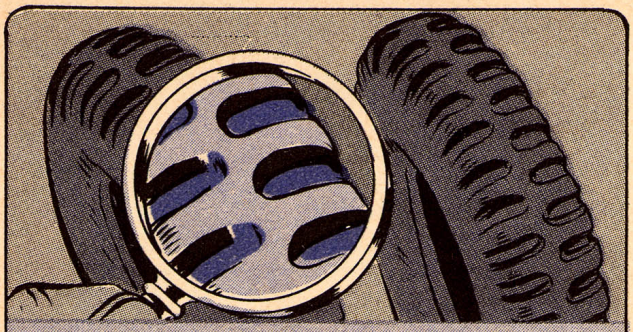
20. sharp turns...



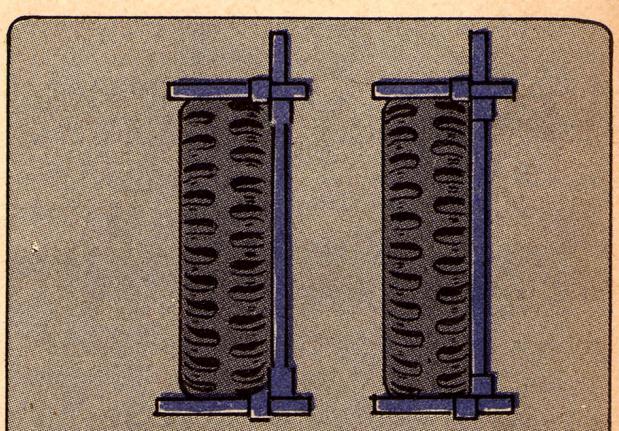
21. pivots and all sorts of things the front tire wear is uneven—cutting the life of those tires more than the rear ones.



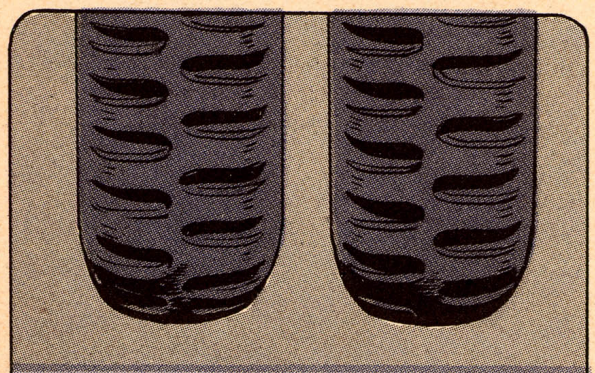
22. High crown roads and road shoulders cause more wear on tires on the right side of your vehicle than on the left.



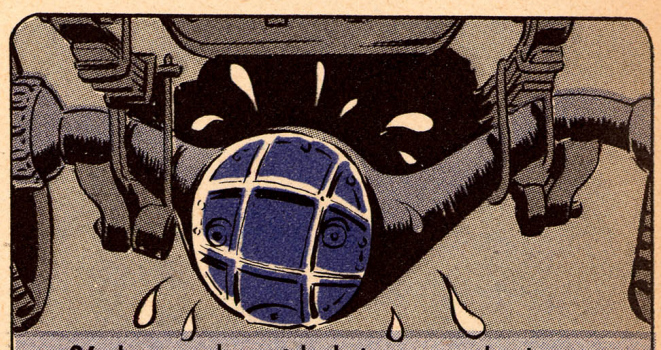
23. When it comes to matching tires, one thing's got to be remembered—no two tires are ever exactly alike, even when they're made by the same manufacturer. And a number of manufacturers make tires for the Army.



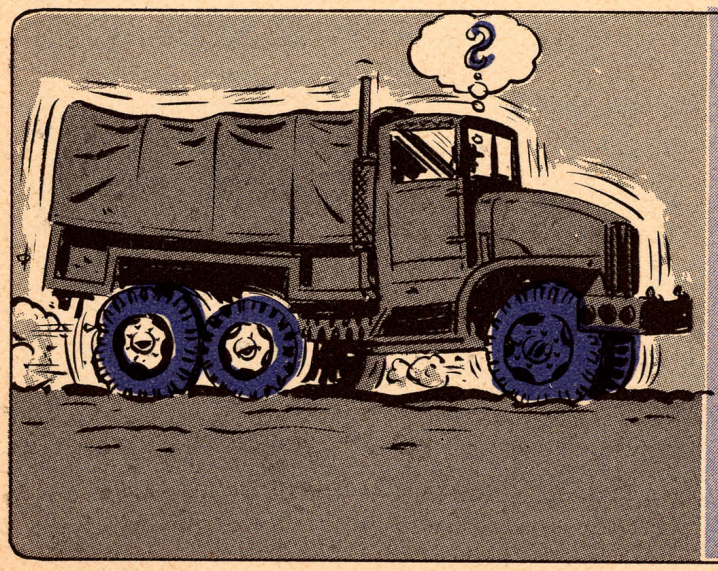
24. You've got to check your tires to see that they're the same or almost the same size...



25. have the same tread design and that the tread is wearing the same.

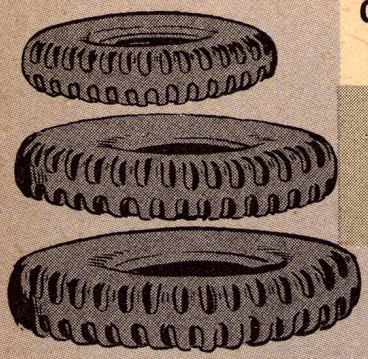


26. Improperly matched tires not only shorten the life of your tires, but can give you transfer case and differential headaches.



27. Most of your gear trains are designed to allow slippage of the rear wheels before the front drive engages. If you use larger tires on the front wheels and smaller tires on the rear, the larger front tire will reduce that slippage to almost nothing—**IN SOME CASES.** (There is a tolerance zone between sizes of tires.) This can cause the front drive to engage all the time which, in turn, can cause windup and damage to the gear train, loss of power and lots of tire wear. You particularly have to watch this on dual-wheeled jobs.

28. It's not possible to match all tires exactly, so the following tolerances are allowed—



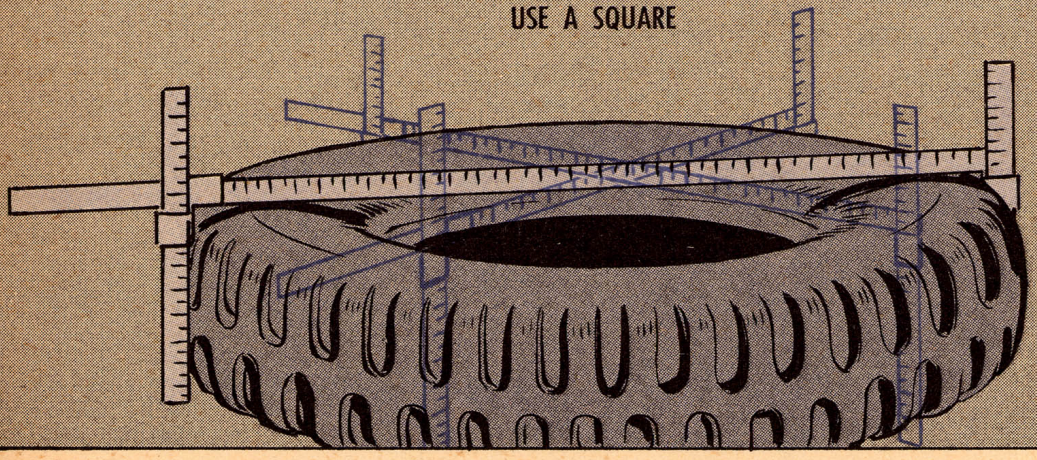
OUTSIDE DIAMETER OF TIRES	DIFFERENCE ALLOWED	
	IN DIAMETER	IN CIRCUMFERENCE
Under 30″	1/4″	3/4″
From 30″ to 40″	3/8″	1 1/8″
Over 40″	1/2″	1 1/2″

Check your new tires too. Some brands may be a little different.

Here's how to measure your tires for diameter and circumference

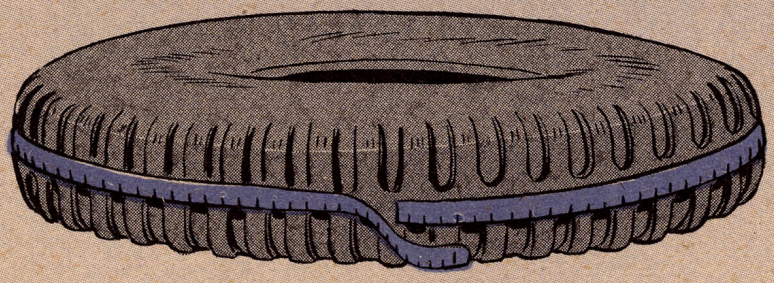
29. **MEASURING DIAMETER (AT THREE DIFFERENT POINTS)**

USE A SQUARE



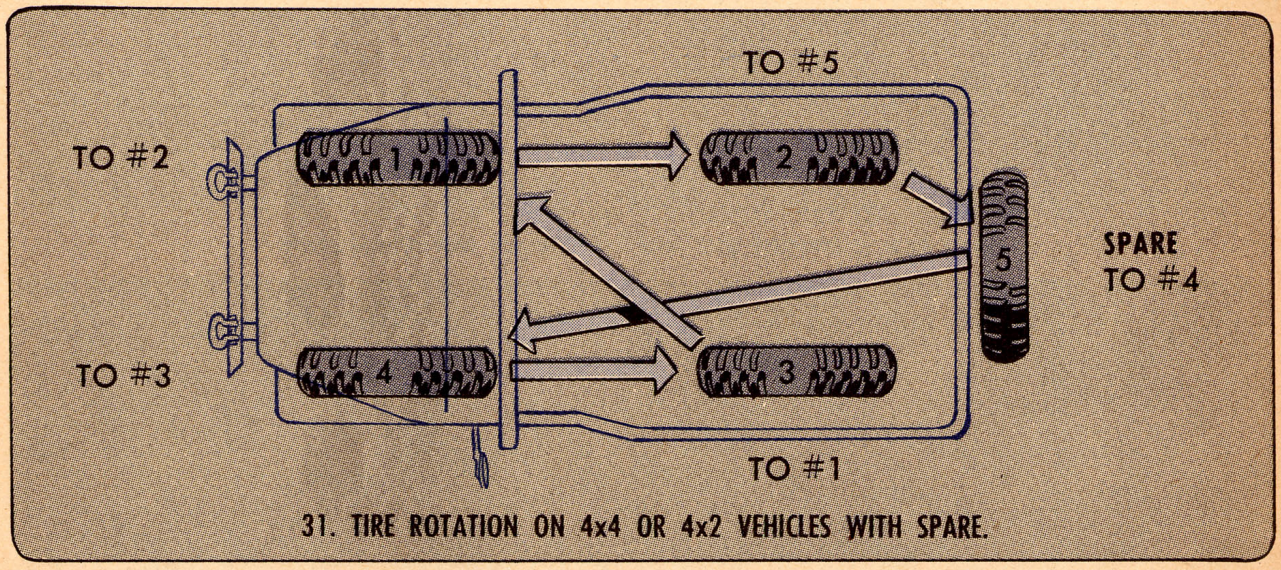
MEASURING CIRCUMFERENCE

USE A STEEL TAPE MEASURE

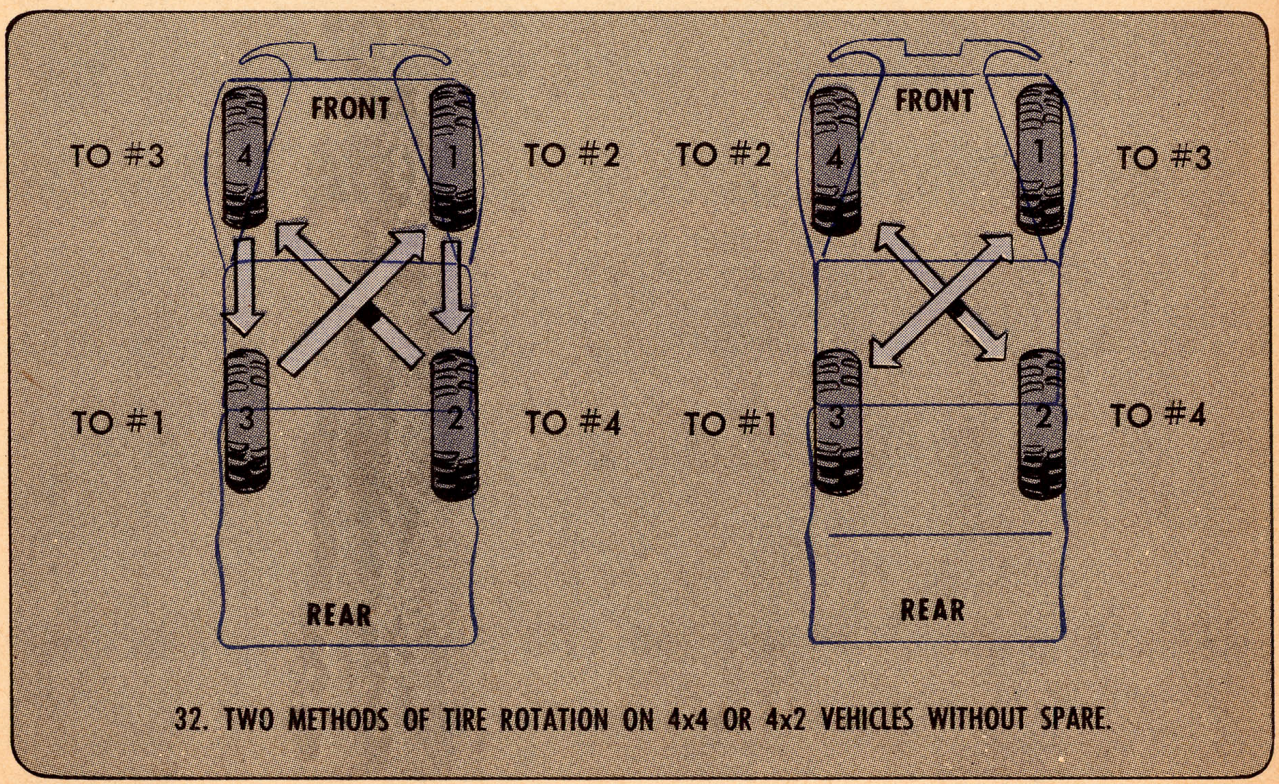


HERE'S HOW TO ROTATE

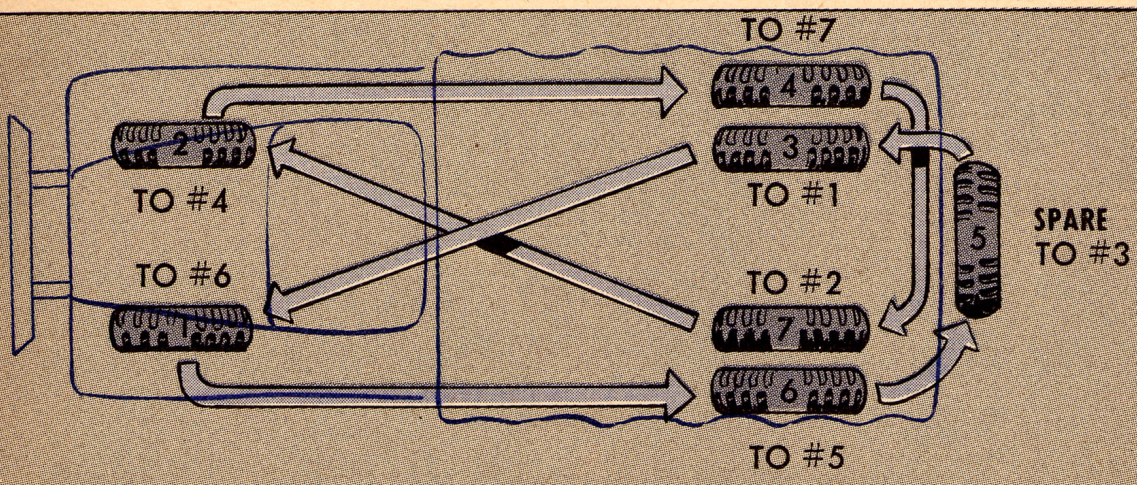
When you match your tires up on dual-wheel jobs and have them within the permissible difference, make sure you mount the larger tire on the outside. Do it this way.



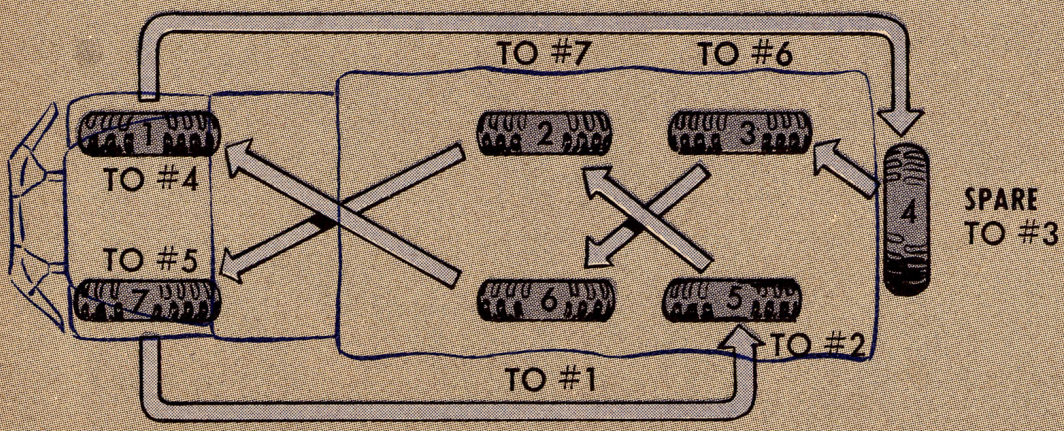
31. TIRE ROTATION ON 4x4 OR 4x2 VEHICLES WITH SPARE.



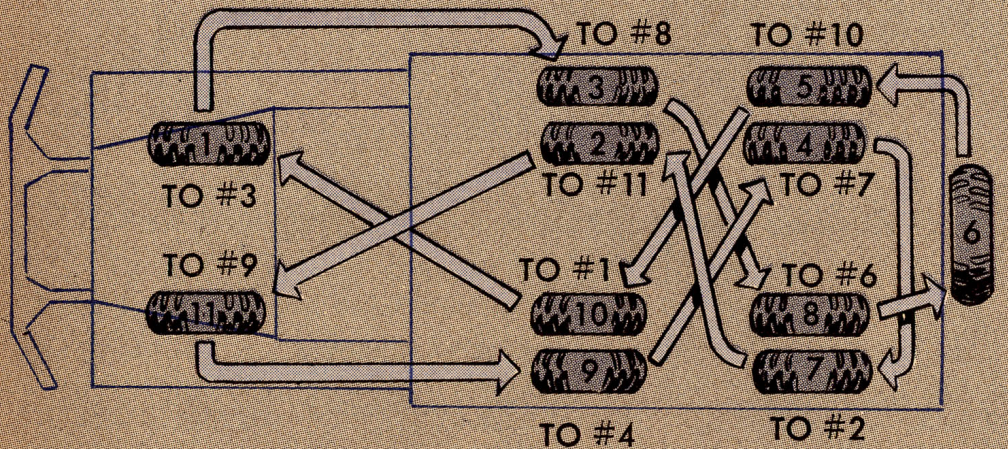
32. TWO METHODS OF TIRE ROTATION ON 4x4 OR 4x2 VEHICLES WITHOUT SPARE.



33. TIRE ROTATION ON 4x4 OR 4x2 DUAL-WHEEL VEHICLES.



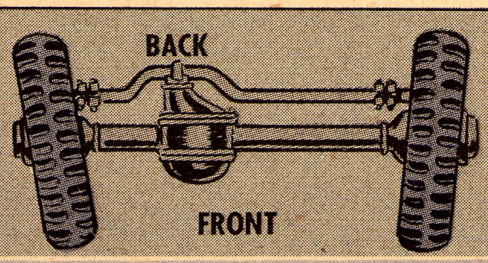
34. TIRE ROTATION ON 6x6 SINGLE-WHEEL VEHICLES.



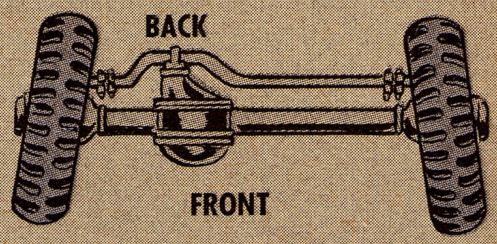
35. TIRE ROTATION ON 6x6 DUAL-WHEEL VEHICLES.

WHEEL ALINEMENT and TIRES

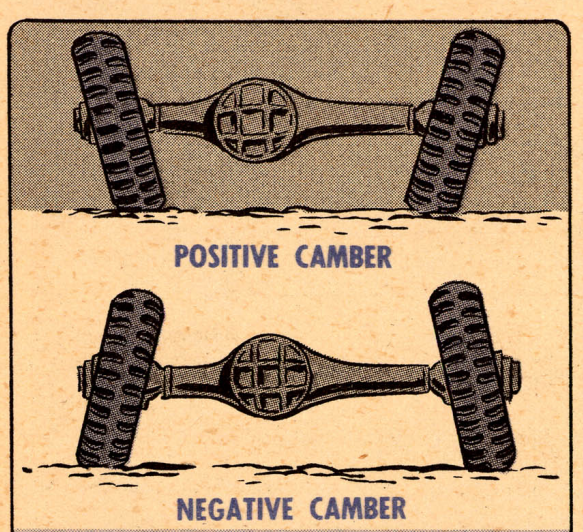
The wheel alinement of your truck directly affects the kind of wear you're going to get from your tires. There're four words used to describe conditions of wheel alinement—



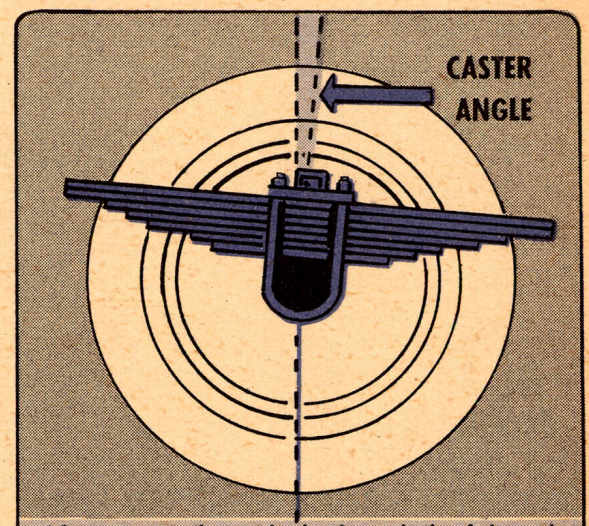
36. **TOE-IN.** Wheels on the same axle are closer together in the front than they are in the rear. Your tire will show a feathered edge on the inside edge of the tread if you've got too much toe-in. It'll also show up more on the right wheel tire. In other words, your tires will be pigeon-toed.



37. **TOE-OUT.** Wheels on the same axle are closer together in the rear than they are in the front. You'll get feathered edges on the outside edges of the tread with most of it showing on the left tire. Your tires are duck-footed.

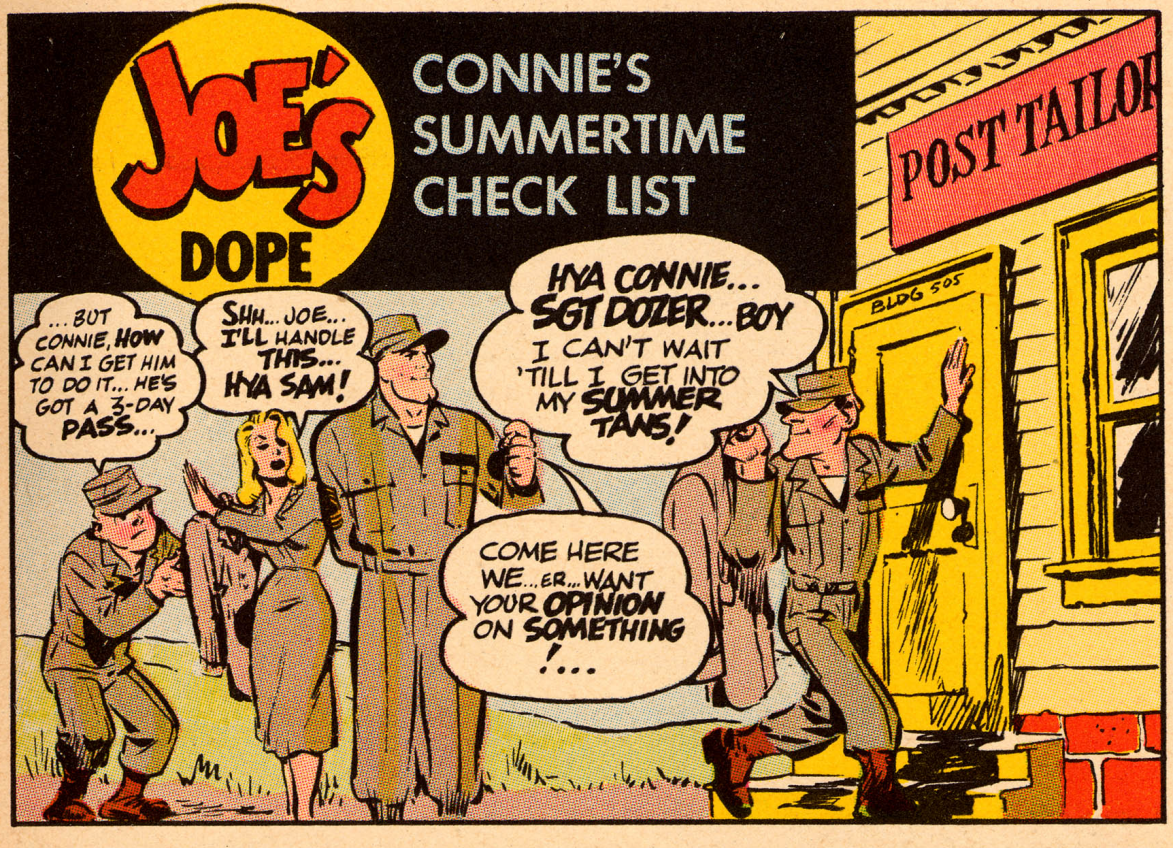


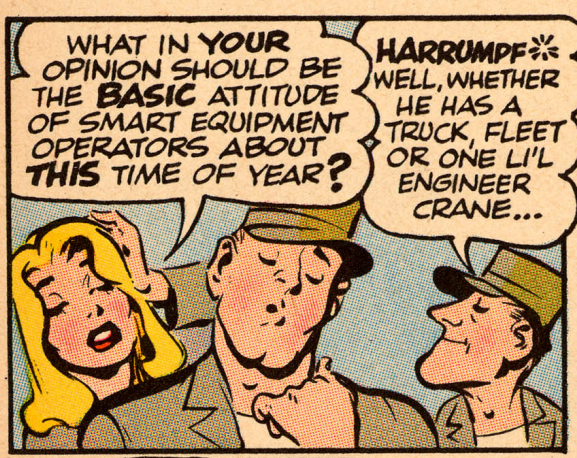
38. **CAMBER.** This is the tilt of the wheel. Positive camber (bow-leggedness)—the wheels are closer together at the point of road contact. Negative camber (knock-kneed) is when the wheels are closer together at the top. This'll cause uneven wear on one side of the tire.

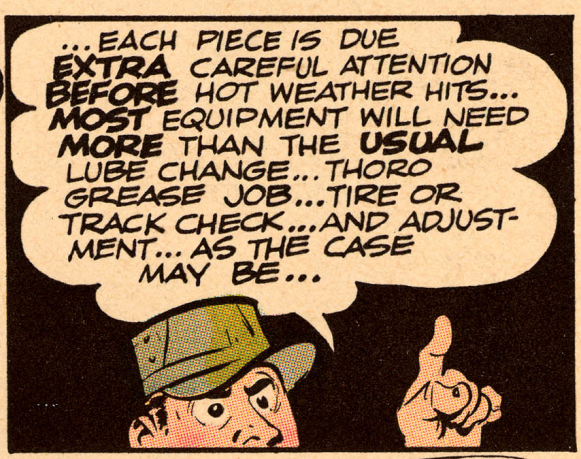


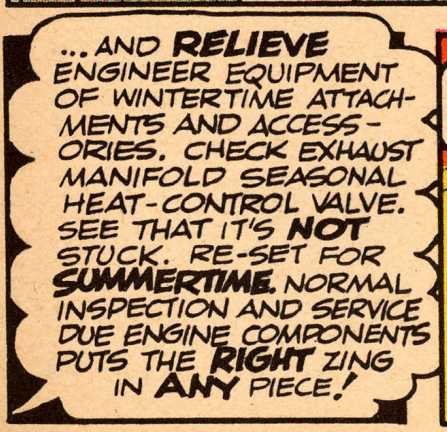
39. **CASTER.** This is the backward tilt of the axle or the tilt of the king pin at the top. Too little caster will cause the wheel to wander or wave—causes spotty tire wear. Unequal caster causes the wheel to pull to one side—excessive and uneven wear.

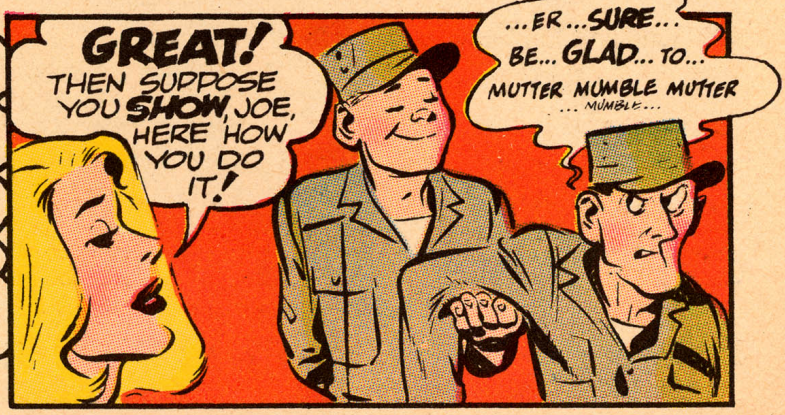
Good driving habits and loving care are the ounce of prevention for any tire sickness. Keep TM 9-1870-1 handy. It tells you all about care and maintenance of pneumatic tires.

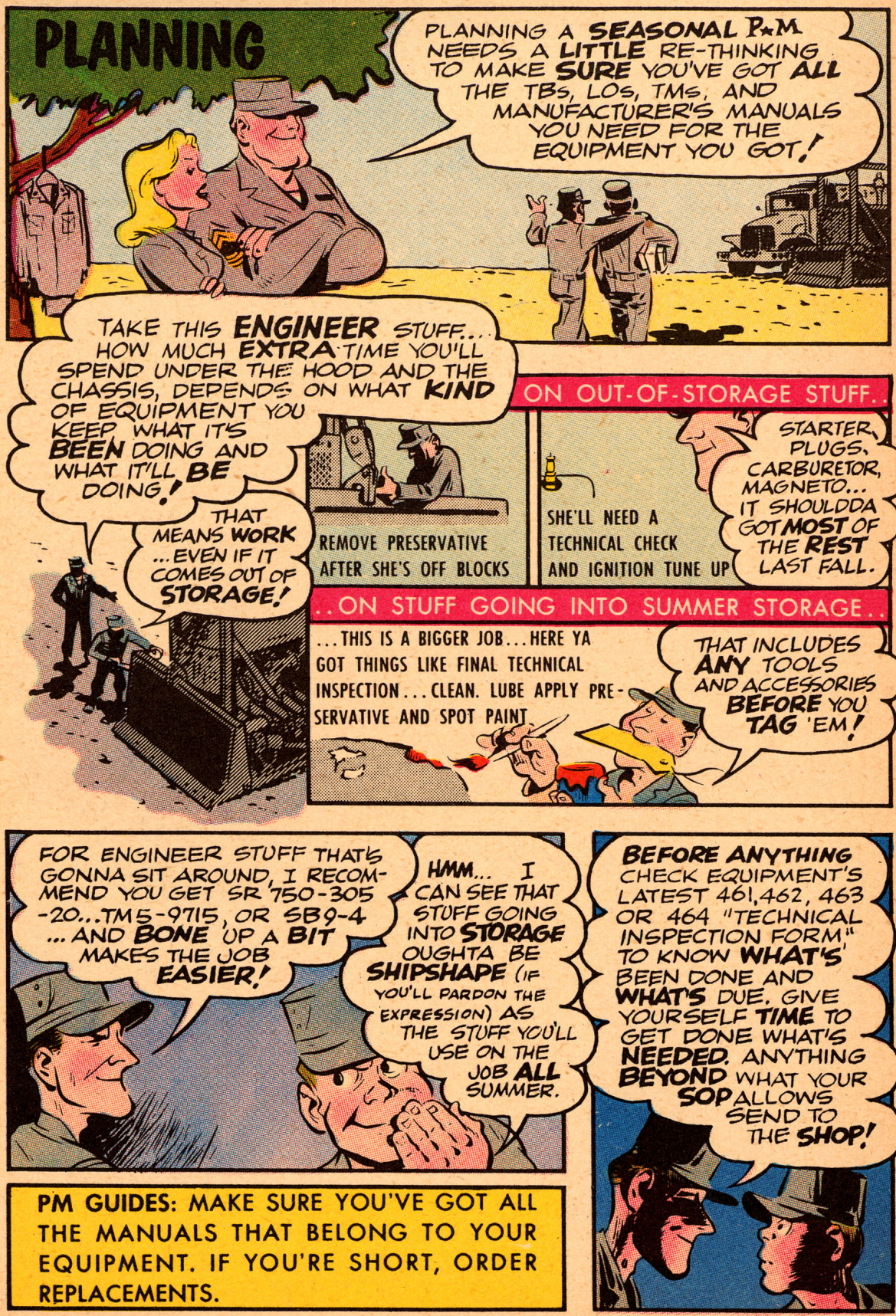

JOE'S DOPE
CONNIE'S SUMMERTIME CHECK LIST
POST TAILOR
BLDG 505
HYA CONNIE... SGT DOZER... BOY I CAN'T WAIT 'TILL I GET INTO MY SUMMER TANS!
SHH... JOE... I'LL HANDLE THIS... HYA SAM!
... BUT CONNIE, HOW CAN I GET HIM TO DO IT... HE'S GOT A 3-DAY PASS...
COME HERE WE... ER... WANT YOUR OPINION ON SOMETHING!...


WHAT IN YOUR OPINION SHOULD BE THE BASIC ATTITUDE OF SMART EQUIPMENT OPERATORS ABOUT THIS TIME OF YEAR?
HARRUMPF* WELL, WHETHER HE HAS A TRUCK, FLEET OR ONE LI'L ENGINEER CRANE...


... EACH PIECE IS DUE EXTRA CAREFUL ATTENTION BEFORE HOT WEATHER HITS... MOST EQUIPMENT WILL NEED MORE THAN THE USUAL LUBE CHANGE... THORO GREASE JOB... TIRE OR TRACK CHECK... AND ADJUSTMENT... AS THE CASE MAY BE...

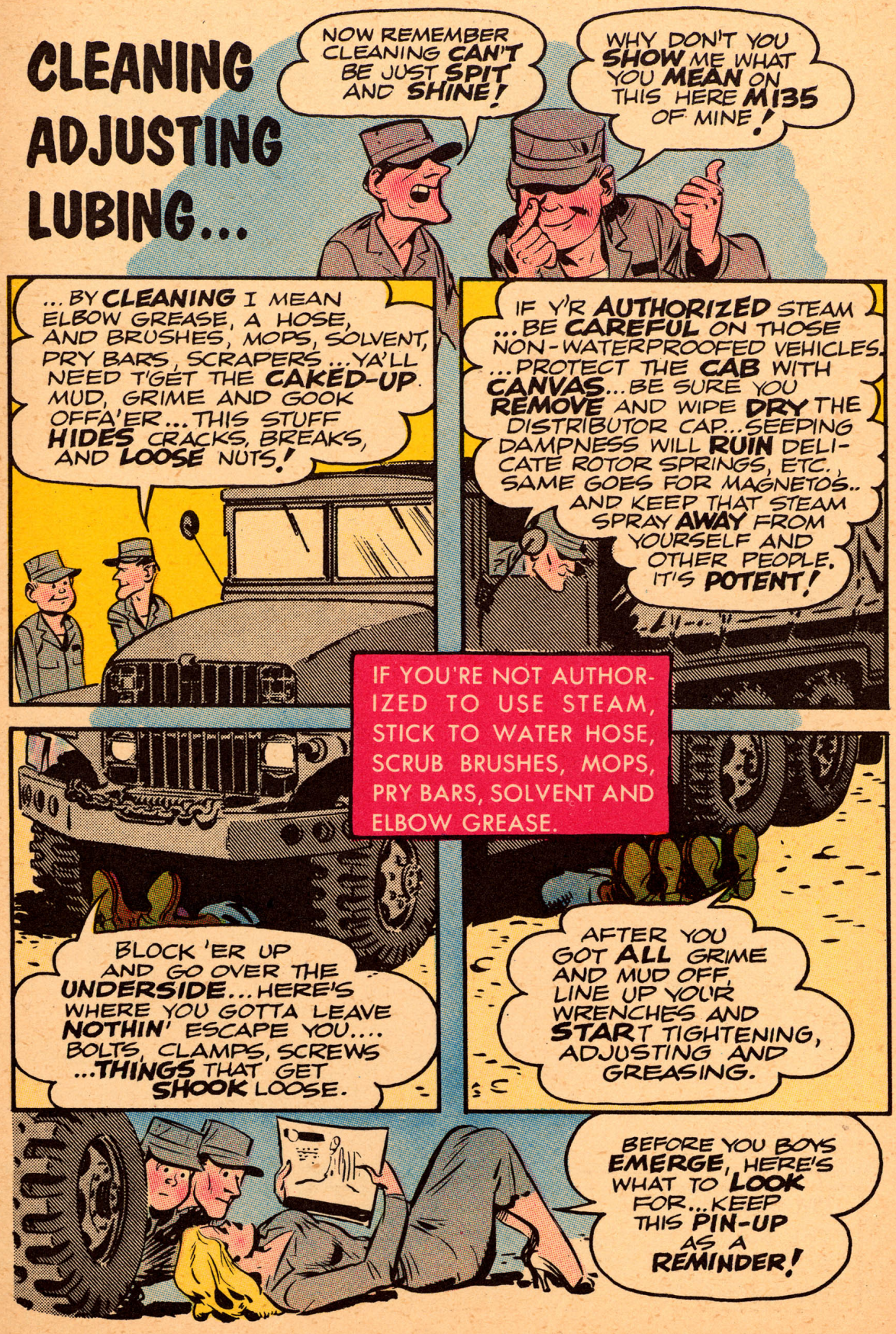

... AND RELIEVE ENGINEER EQUIPMENT OF WINTERTIME ATTACHMENTS AND ACCESSORIES. CHECK EXHAUST MANIFOLD SEASONAL HEAT-CONTROL VALVE. SEE THAT IT'S NOT STUCK. RE-SET FOR SUMMERTIME. NORMAL INSPECTION AND SERVICE DUE ENGINE COMPONENTS PUTS THE RIGHT ZING IN ANY PIECE!


GREAT! THEN SUPPOSE YOU SHOW, JOE, HERE HOW YOU DO IT!
... ER... SURE... BE... GLAD... TO... MUTTER MUMBLE MUTTER ... MUMBLE...

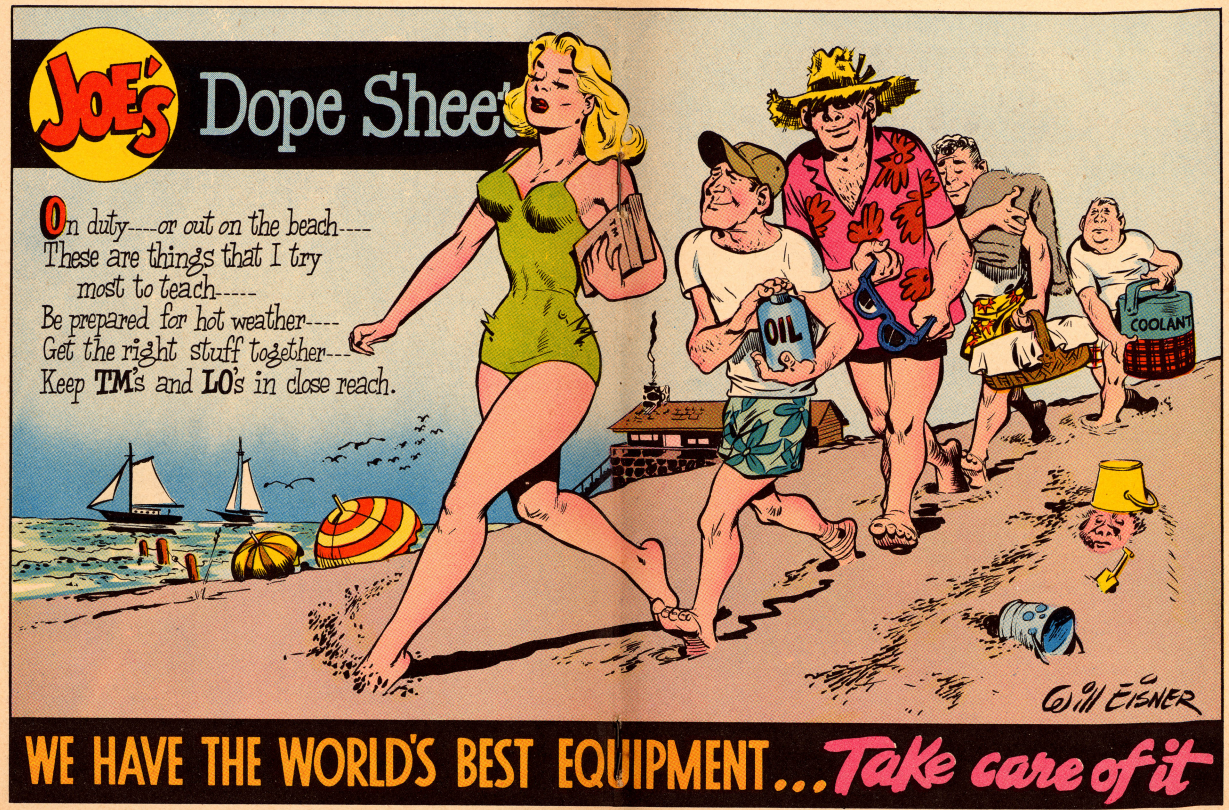


PM GUIDES: MAKE SURE YOU'VE GOT ALL THE MANUALS THAT BELONG TO YOUR EQUIPMENT. IF YOU'RE SHORT, ORDER REPLACEMENTS.

CLEANING ADJUSTING LUBING...



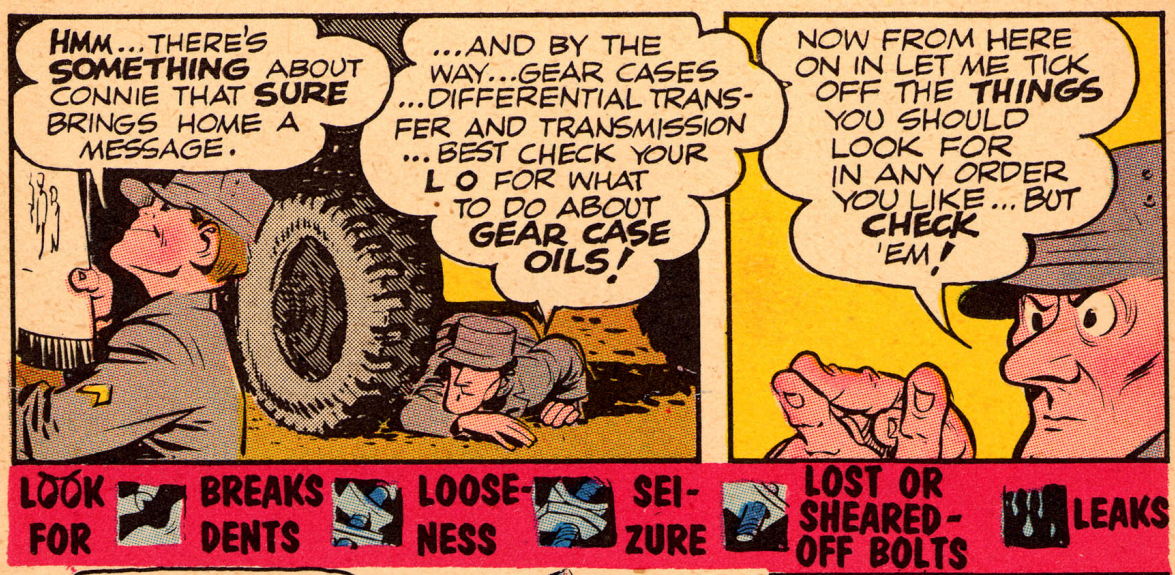
COPYRIGHT 1956



COPYRIGHT 1956 BY WILL EISNER

UIPMENT...Take care of it

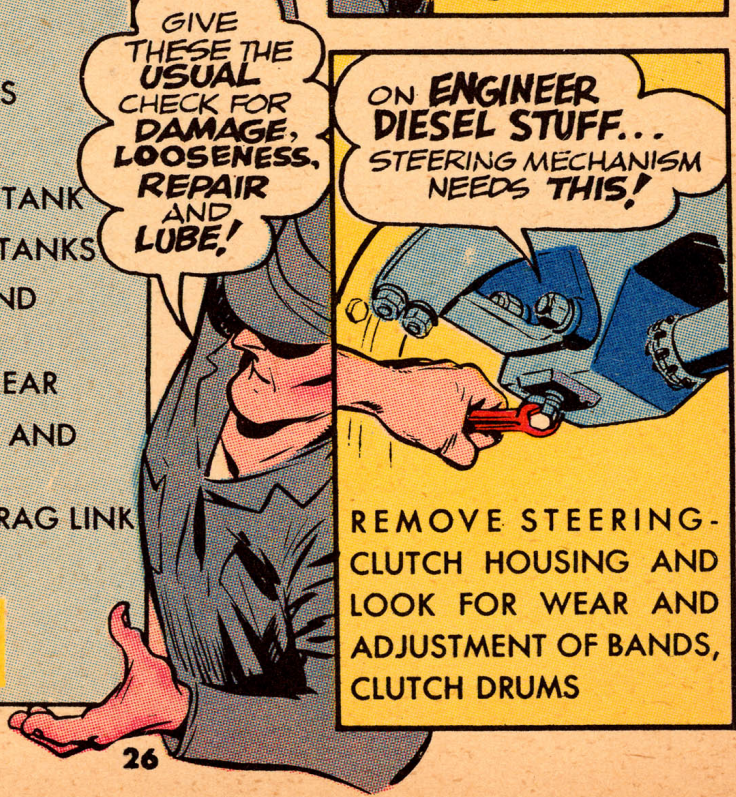
BY WILL EISNER



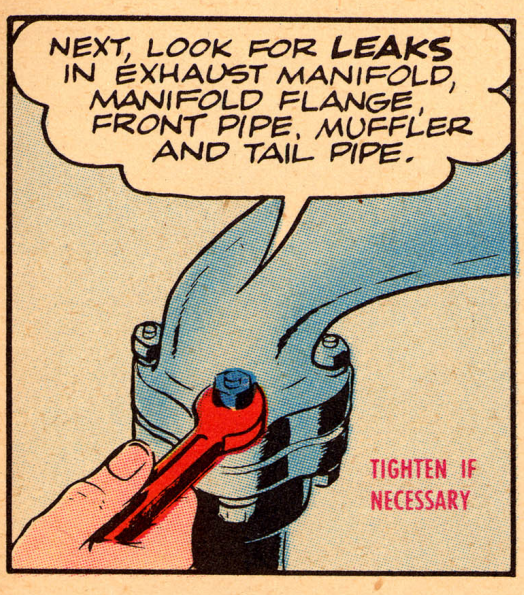
LOOK FOR BREAKS DENTS LOOSE-NESS SEI-ZURE LOST OR SHEARED-OFF BOLTS LEAKS

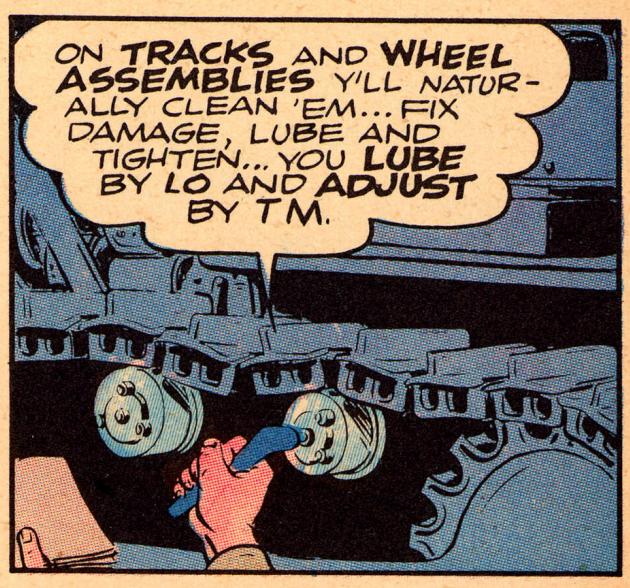
- PROPELLER SHAFTS
- "CV" AND "V" JOINTS
- "CV" JOINT BOOTS
- TORQUE ROD MOUNTING
- SHOCK ABSORBERS
- BRAKE LINES
- BRAKE HOSE SPRINGS
- MASTER CYLINDER
- FUEL LINE AND FUEL TANK
- AIR LINES AND AIR TANKS
- HYDRAULIC TUBES AND CYLINDERS
- STEERING-TORQUE GEAR
- STEERING KNUCKLES AND LINKAGE
- PITMAN ARM AND DRAG LINK
- STEERING WHEEL

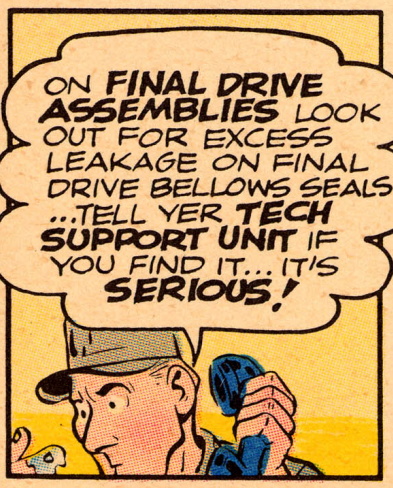
*LO TELLS ABOUT LUBING STEERING MECHANISM ASSEMBLY.



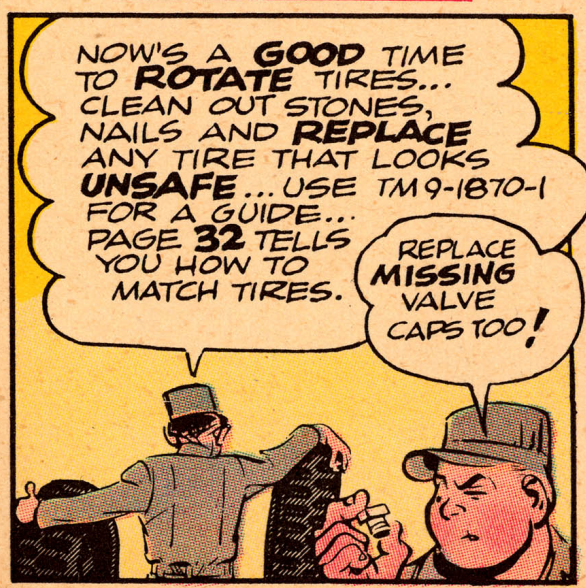
REMOVE STEERING-CLUTCH HOUSING AND LOOK FOR WEAR AND ADJUSTMENT OF BANDS, CLUTCH DRUMS

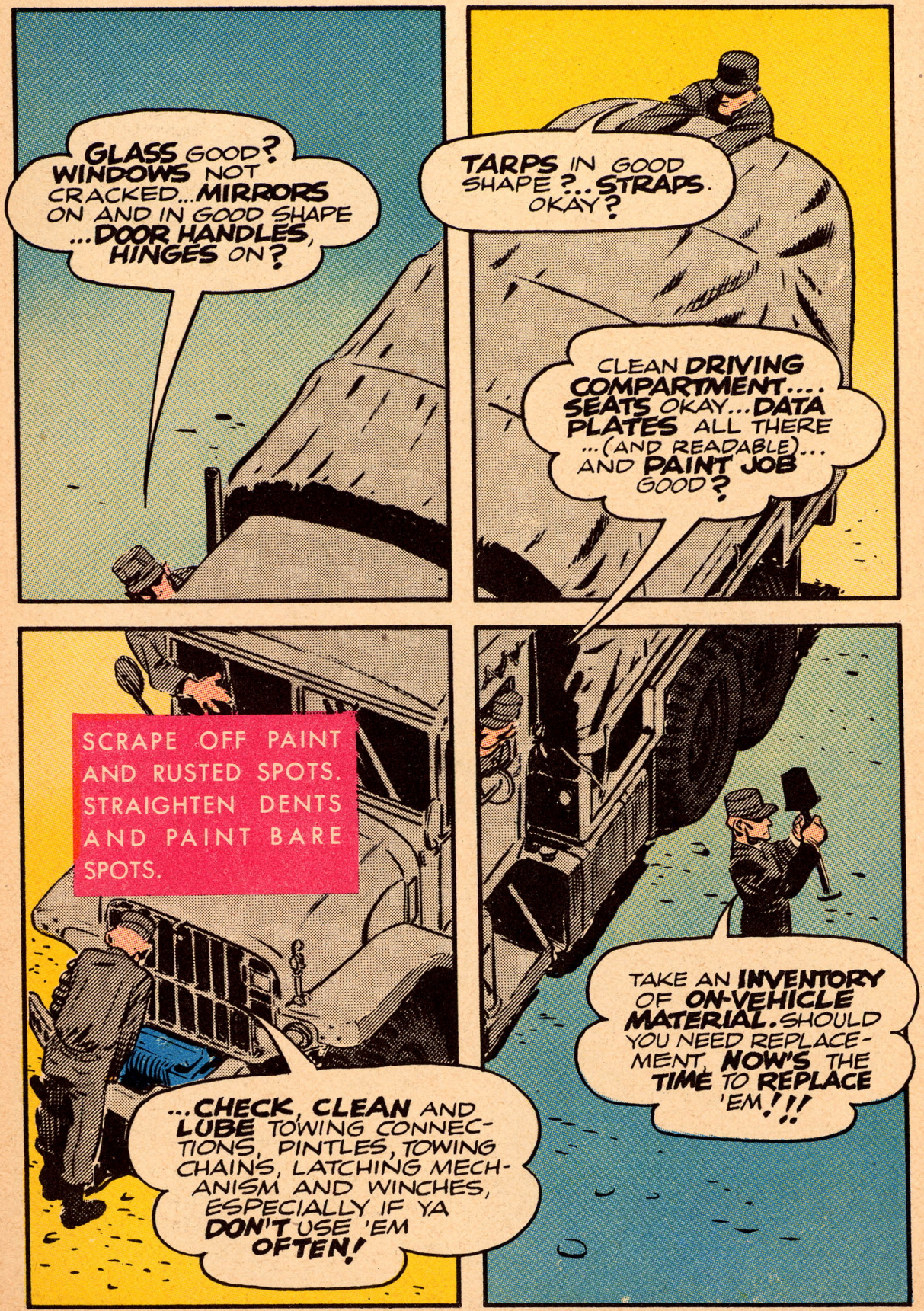


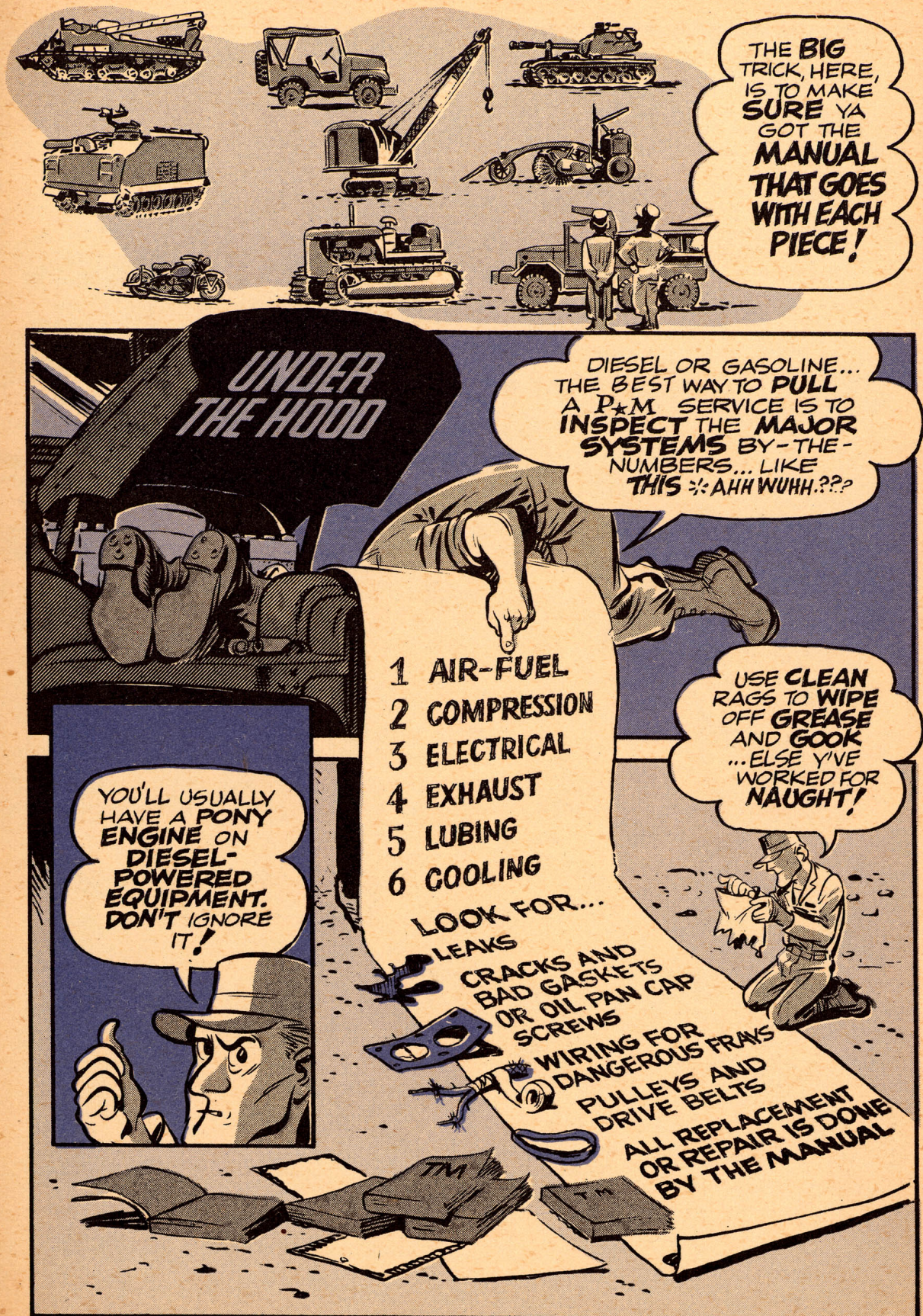




ON WHEELED STUFF:

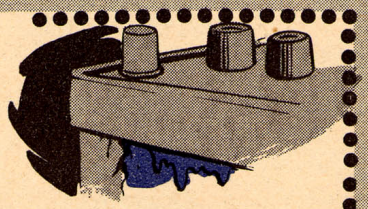



GLASS GOOD? WINDOWS NOT CRACKED... MIRRORS ON AND IN GOOD SHAPE ...DOOR HANDLES, HINGES ON?
TARPS IN GOOD SHAPE?...STRAPS. OKAY?
CLEAN DRIVING COMPARTMENT.... SEATS OKAY... DATA PLATES ALL THERE ...(AND READABLE)... AND PAINT JOB GOOD?
SCRAPE OFF PAINT AND RUSTED SPOTS. STRAIGHTEN DENTS AND PAINT BARE SPOTS.
...CHECK, CLEAN AND LUBE TOWING CONNECTIONS, PINTLES, TOWING CHAINS, LATCHING MECHANISM AND WINCHES, ESPECIALLY IF YA DON'T USE 'EM OFTEN!
TAKE AN INVENTORY OF ON-VEHICLE MATERIAL. SHOULD YOU NEED REPLACEMENT, NOW'S THE TIME TO REPLACE 'EM!!!

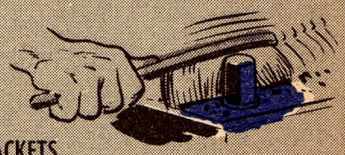

THE BIG TRICK, HERE, IS TO MAKE SURE YA GOT THE MANUAL THAT GOES WITH EACH PIECE!
UNDER THE HOOD
DIESEL OR GASOLINE... THE BEST WAY TO PULL A P★M SERVICE IS TO INSPECT THE MAJOR SYSTEMS BY-THE-NUMBERS... LIKE THIS ☆ AHH WUHH.???
1 AIR-FUEL
2 COMPRESSION
3 ELECTRICAL
4 EXHAUST
5 LUBING
6 COOLING
LOOK FOR...
LEAKS
CRACKS AND BAD GASKETS OR OIL PAN CAP SCREWS
WIRING FOR DANGEROUS FRAYS
PULLEYS AND DRIVE BELTS
ALL REPLACEMENT OR REPAIR IS DONE BY THE MANUAL
YOU'LL USUALLY HAVE A PONY ENGINE ON DIESEL-POWERED EQUIPMENT. DON'T IGNORE IT!
USE CLEAN RAGS TO WIPE OFF GREASE AND GOOK ...ELSE Y'VE WORKED FOR NAUGHT!
TM
TM

COOLING SYSTEM

BATTERIES

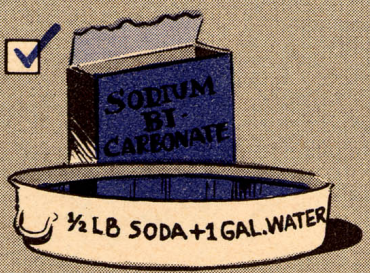


PULL BATTERY AND CHECK FOR CRACKS AND LEAKS...



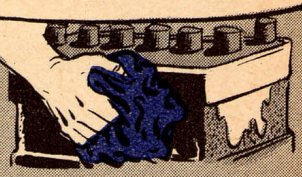
CLEAN POSTS, BRACKETS, TERMINALS, CLAMPS OF CORROSION AND DIRT

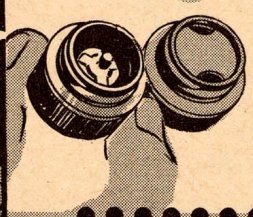
WITH **SUMMER** ON THE WAY, THIS JOB CAN'T BE **TOO** WELL DONE... IT'S A **TRICKY** JOB... **FIRST**, DRAIN, FLUSH, AND SERVICE, USING **CLEANING COMPOUND** WITH **INHIBITOR** ...ONLY WHEN ACTUALLY NEEDED— NOT AT REGULAR INTERVALS!



SEE TB ORD 557

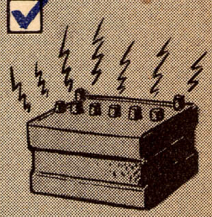
WASH BATTERY WITH THIS BUT **DON'T** FORGET TO **DRY** IT OFF...OR Y'LL GET **ELECTRICAL LEAKS!** KEEP BI-CARB SOLUTION **OUT** OF CELLS!



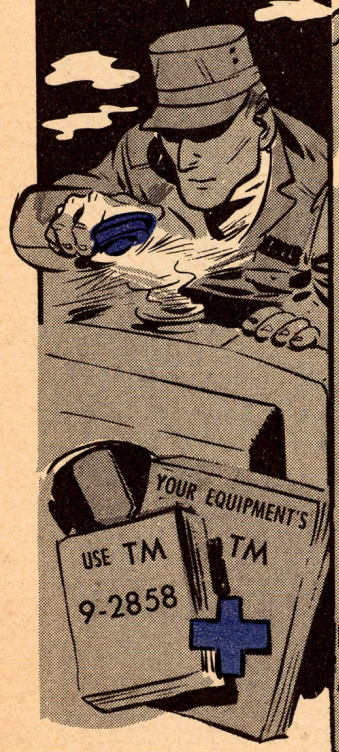


CLEAN FILLER PLUG VENT HOLES. ON 6TN BATTERIES YOU SHOULD HAVE CAPS WITH A WHITE PLASTIC RELIEF VALVE. THE BLACK ONES ARE NO GOOD. TB ORD 520 TELLS HOW TO GET THOSE WHITE ONES.

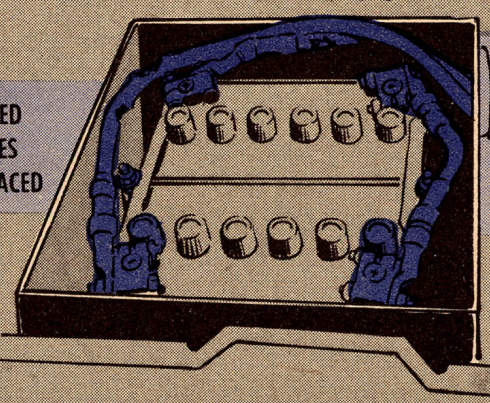
HOW'S ELECTROLYTE LEVEL



HOW'S THE CHARGE??



FRAYED CABLES REPLACED



LOOSE OR FRAYED CABLES CAUSE FIRES AND EXPLOSIONS

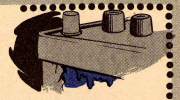
SCRAPE AND PAINT BATTERY BOXES AND CARRIERS

BATTERY HOLD-DOWNS HAVE TO BE FIRMLY SEATED BUT THEY MUSTN'T BE TOO TIGHT OR THEY'LL CRACK THE CASE; OR MAYBE PULL THE BATTERY OUT OF SHAPE.

COOLING SYSTEM

BATTERIES

WITH SUMMER ON THE WAY, THIS JOB CAN'T BE TOO WELL DONE... IT'S A TRICKY JOB... FIRST, DRAIN, FLUSH, AND SERVICE, USING CLEANING COMPOUND WITH INHIBITOR ...ONLY WHEN ACTUALLY NEEDED— NOT AT REGULAR INTERVALS!



PULL BATTERY AND CHECK FOR CRACKS AND LEAKS...

CLEAN POSTS, BRACKETS, TERMINALS, CLAMPS OF CORROSION AND DIRT

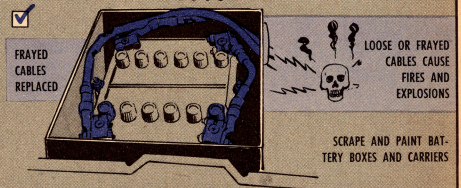
SEE TB ORD 557

WASH BATTERY WITH THIS BUT DON'T FORGET TO DRY IT OFF...OR Y'LL GET ELECTRICAL LEAKS! KEEP BI-CARB SOLUTION OUT OF CELLS!

CLEAN FILLER PLUG VENT HOLES. ON 6TN BATTERIES YOU SHOULD HAVE CAPS WITH A WHITE PLASTIC RELIEF VALVE. THE BLACK ONES ARE NO GOOD. TB ORD 520 TELLS HOW TO GET THOSE WHITE ONES.

HOW'S ELECTROLYTE LEVEL

HOW'S THE CHARGE??



FRAYED CABLES REPLACED

LOOSE OR FRAYED CABLES CAUSE FIRES AND EXPLOSIONS

SCRAPE AND PAINT BATTERY BOXES AND CARRIERS

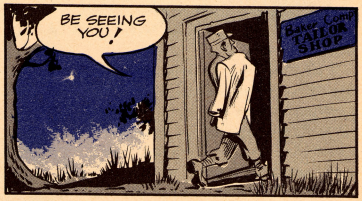
BATTERY HOLD-DOWNS HAVE TO BE FIRMLY SEATED BUT THEY MUSTN'T BE TOO TIGHT OR THEY'LL CRACK THE CASE; OR MAYBE PULL THE BATTERY OUT OF SHAPE.

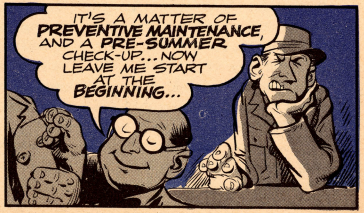
ALL DONE?

LET'S GIVE IT A ONE-TWO-THREE

- EVERYTHING CHECKED, REPAIRED ADJUSTED? ☑
- COOLANT, LUBES FUELS... AND FLUIDS AT PROPER LEVEL...?? ☑
- GAGES READ RIGHT?? ☑
- ENGINE SMOOTH ☑
- BRAKES OK? ☑
- LIGHTS AIMED? ☑
- WIPERS WORK? ☑
- HORN WORK? ☑
- FIRE EXTINGUISHER READY FOR ACTION? ☑
- TOOLS, TARPS, ETC. ☑
- FILLED THIS OUT? ☑

O.K. SEND HER BACK TO WORK





ALL DONE?

LET'S GIVE IT A ONE-TWO-THREE

EVERYTHING CHECKED, REPAIRED ADJUSTED? ☑

COOLANT, LUBES FUELS...AND FLUIDS AT PROPER LEVEL...?? ☑

GAGES READ RIGHT?? ☑

ENGINE SMOOTH ☑

BRAKES OK? ☑

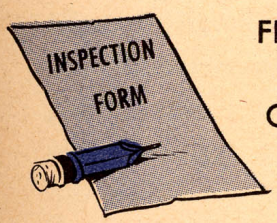
LIGHTS AIMED? ☑

WIPERS WORK? ☑

HORN WORK? ☑

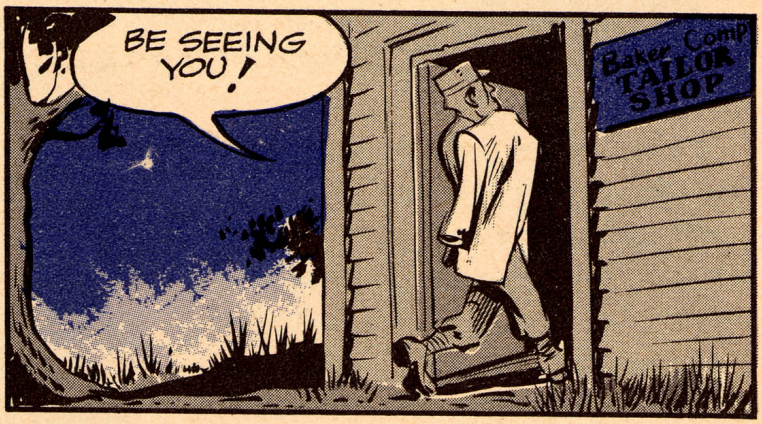
FIRE EXTINGUISHER READY FOR ACTION? ☑

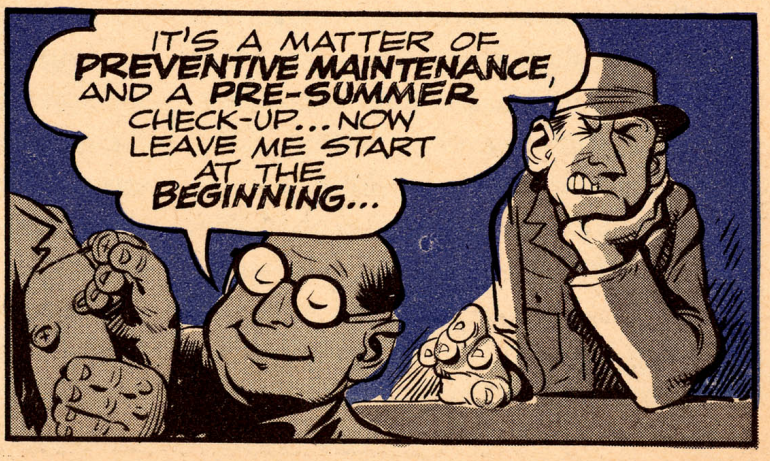
TOOLS, TARPS, ETC. ☑

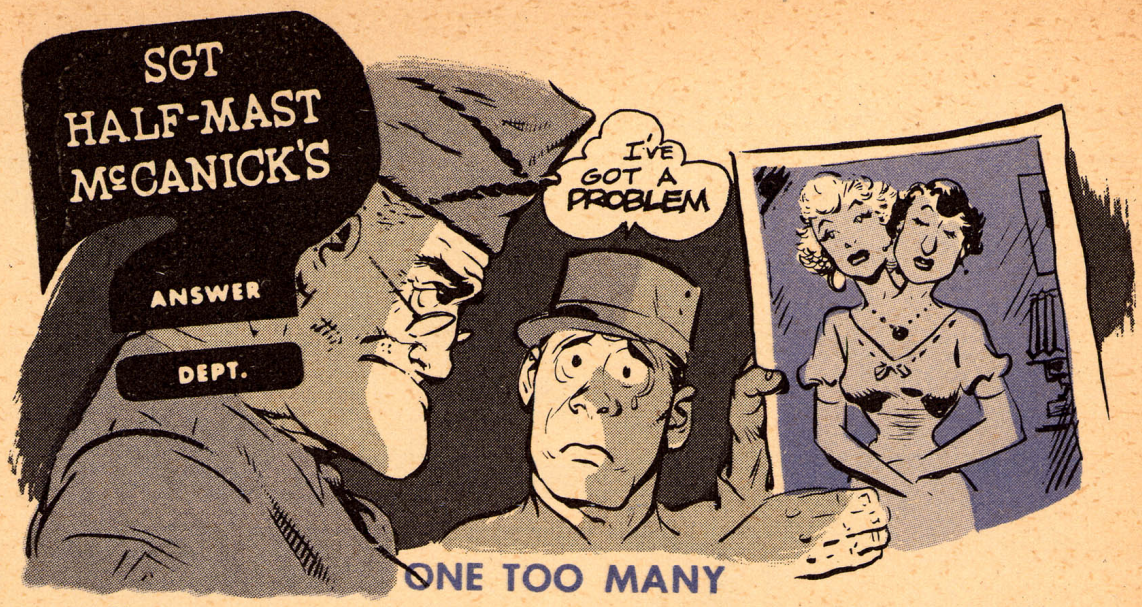


FILLED THIS OUT? ☑

O.K. SEND HER BACK TO WORK







ONE TOO MANY

Dear Half-Mast,

We're having quite a time getting ammeters for our M-series vehicles. The meter we've been getting has one connector on it while the trucks are equipped to take two connectors—can't make a round peg fit a square hole.

Could it be that we've missed an MWO telling us to rewire these one-connector ammeters so they'll fit our two-connector trucks?

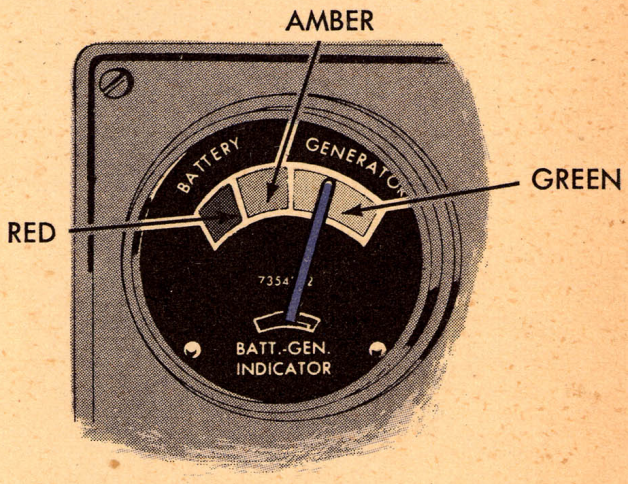
SP3 G. M. W.

Dear Specialist G. M. W.,

Better tell you right quick that those one-connector gadgets you're talking about are not ammeters—they're voltmeters.

All your new M-series vehicles are coming through with voltmeters (Ord Stock Nos. G742-8376377 or G749-7354232) instead of ammeters. The early-production model M-series vehicles have the ammeter (Ord Stock No. G742-7728854) — the two-connector jobs.

When you send in a requisition for new meters, the thing you'll have to do is specify whether your trucks take the voltmeter or the ammeter. This is the only way you'll be sure that you'll get the right meter for your truck.



Eventually, all trucks will wind up with the voltmeter. This will happen when the Army supply of ammeters is used up. Even now, there's an MWO in the mill which will tell you how to make the change-over from ammeter to voltmeter. This MWO won't take effect, tho, until the ammeter supply is exhausted.

The apparent reason for the change is that a voltmeter is easier to read and understand. A voltmeter measures voltage—natch. There are three colors on

this meter — red, amber and green. When that needle's on red it means your electrical system isn't producing enough juice—usually when your voltage drops below 24 volts. When she's on amber, it means your system is turning out anywhere from 24 to 27.5 volts. You'll usually get this reading when your truck's idling. Green, of course, means your system's cooking with gas — she's producing at least 27.5 volts.

Half-Mast

ON THE WARPATH

Dear Half-Mast,

It's gotta stop, 'cause if I find anyone messing around my trucks, I'll cook him alive.

Now that I've blown off some steam, I'll tell you what this is all about. Those service tail and stop light assemblies are at fault. They're listed in all Ord 9's for the M-series tactical wheeled vehicles but not in the Ord 7's. Which all means that the using units can't get them without going through a lot of red, green and purple tapes.

And, because of this, there's been a lot of underhanded dealings going on around here. All I know is that the other day I went around looking at a couple of M34 2½-ton trucks and those blankety-blank lights were missing. In other words, Sarge, it looks like a lot of guys around here are becoming a bunch of cannibals.

Tell me what to do, Sarge, before I go beserk altogether. My nerves are just about shot and unless I find out how to get those lights fastest someone's going to spend a couple of weeks in a hospital.

SFC B. S.

Dear SFC B. S.,

Hold it now, boy. For your nerves I suggest you take a bromo, and then when you've calmed down, listen to what I have to tell you.

First off, the Army's recognized this problem and has come up with an excellent fix — from now on those lights will be in all the Ord 7's.

As you know, all your trucks except the G741 ¾-ton series use the H004-7760506 and the H004-7760507 assemblies. The H004-7760506 is the right-hand light and the other goes on the left.

The G741 ¾-ton trucks use the G741-8328083 assembly for the left-hand side and the G741-8328082 assembly for the right side.

As each revision to the Ord 7's comes out, you'll find these stock numbers listed, which means you'll be able to get these assemblies with no sweat at all.

Fire off a letter to me any time you discover any other item that's fouled up like these light assemblies.

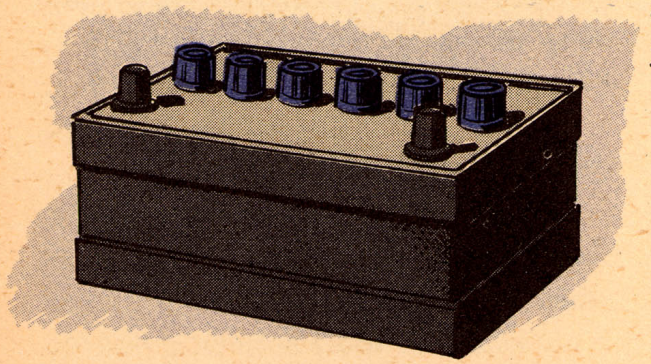
Half-Mast

STORING DRY-CHARGED BATTERIES

Dear Half-Mast,

How long can a dry-charged battery be stored? And particularly, how long can it be stored in the battery box of a vehicle? What about rain getting on stored batteries?

SFC G. D. S.



Dear SFC G. D. S.,

For all practical purposes, a dry-charged battery can be stored indefinitely. Some folks say "forever," but nobody has lived that long to see.

But, the joker is that it must be kept dry. Batteries in the battery boxes of vehicles will have a good chance of staying dry, **inside** the cells where it counts, as long as the caps are tight. The caps of the military batteries are designed to keep water out even if the battery is six feet deep, so it isn't too likely that rain on the tops will get in.

On the other hand, everything you can do to be sure those batteries stay dry, and out of the real hot sun, will help you be sure they are ready when you need 'em. Take a long look at TM 9-2857, (15 May 45) for **the word.**

Half-Mast

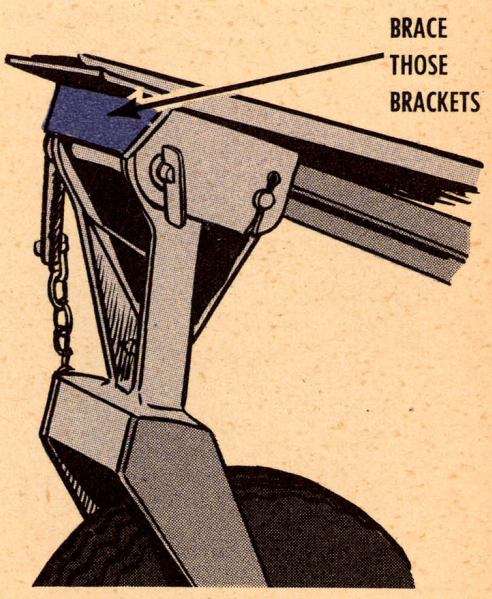
BRACE UP

Dear Half-Mast,

What can I do to keep those third wheels on the M104 trailers from sagging on me?

Seems the slightest movement of the trailer breaks the bracket bracing the wheel, which in turn causes the wheel to mugwump all over the place. What's your fix, Sarge?

Sgt T. Y. M.



Dear Sgt T. Y. M.,

Not my fix, Sarge—the Army's. Take your trailers back to Ordnance and have them put MWO Ord G754-W4 (7 Jan 55) into operation.

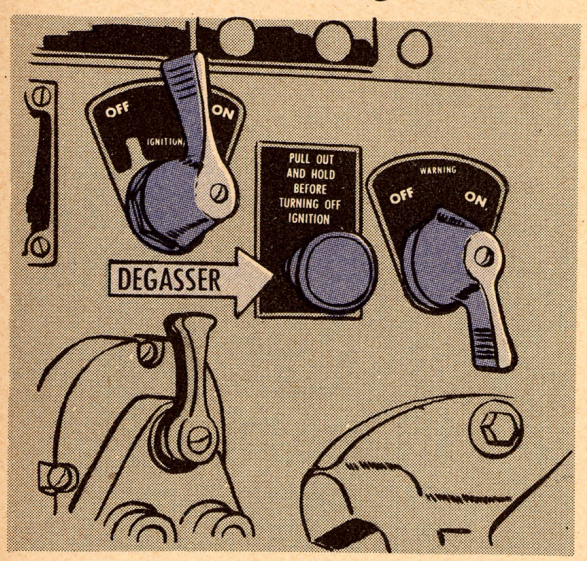
This'll fix your trailers up right well. The MWO tells Ordnance to brace those brackets so you'll never have sagging trouble again.

"Urgent" is the word printed atop this publication. And you know what that means—**urgent.**

Half-Mast

Gotta be this or that

Your 5-ton truck can have one of three types of carburetors on it — the 7375469, the 8327282 or the 8331877. That last one—the 8331877—has what's called a degasser built right into it.



This degasser stops your engine from dieseling—that's when your engine keeps running after you shut the ignition off.

What happens is this—the heat in the combustion chambers really builds up when your truck's running. When you turn off your ignition, believe it or not, your truck may keep running, because this heat ignites any fuel mixture still in the chambers or flowing into the chambers from the carburetor. To stop this, you pull out the anti-dieseling control wire on your instrument panel. Then, when the engine dies, you turn off the ignition switch.

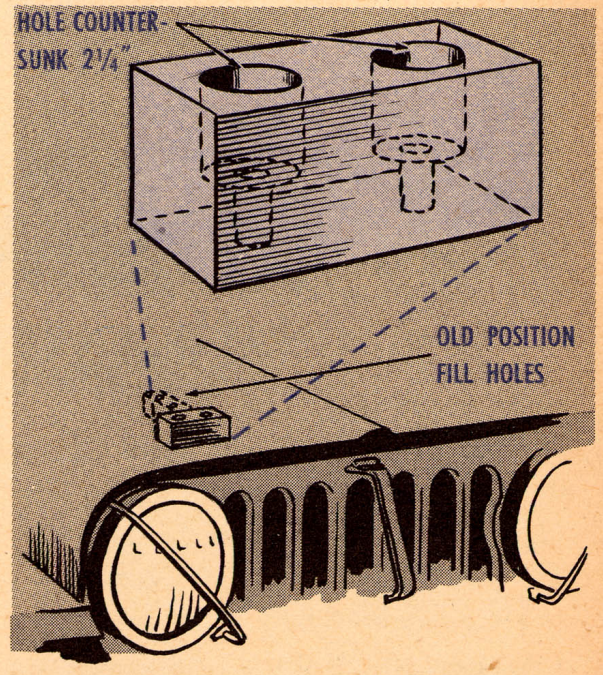
But those two other carburetors—the 7375469 and the 8327282—don't have built-in degassers. This is where MWO Ord G744-W23 (28 Sept 55) comes into the picture. This MWO says you're to take your truck back to Ordnance and have them put a quick-opening valve on your intake manifold to stop this dieseling. It's marked **urgent.**

When you open the valve, you let a free flow of fresh air into the intake manifold which stops your engine from dieseling. O'course, you have to be sure you close that valve when you start your engine again.

Block that bounce

When the M38's windshield is down, its tarpaulin channel rests on the hood-bumper-blocks. Unless you've tied it down real tight, and it stays that way, the blocks may wallop and flatten or crush the tarpaulin channel as it bounces along.

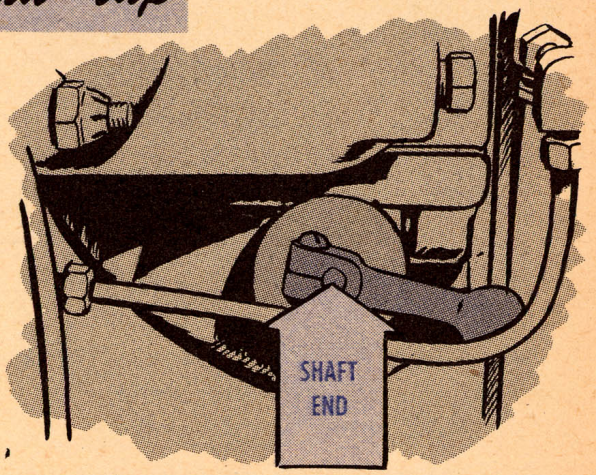
Some men are moving the blocks on the hood. They drill new holes and move 'em so that the windshield's frame —rather than the weaker tarp channels rest on them. Then they cover the blocks with rubber for a padding. The windshield is then supported in the manner to which it would like to become accustomed.

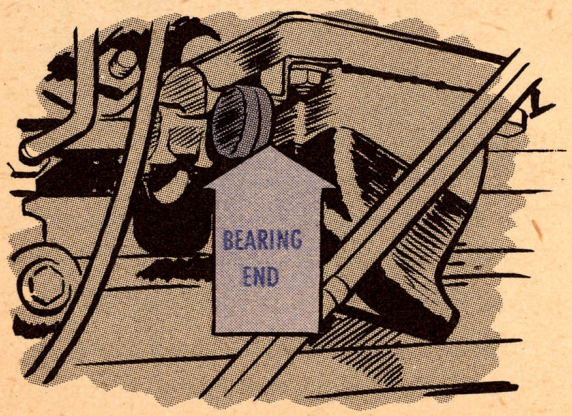


Oil and tap

The hammer-and-tong method's no good when the manifold heat-control counterweight shaft's frozen on your M38 Jeep. The first thing some people do when they run into this kind of trouble is grab the counterweight with a wrench and twist it.

The best way to loosen up the shaft is use a little penetrating oil mixed with graphite on the bearing end of the shaft.





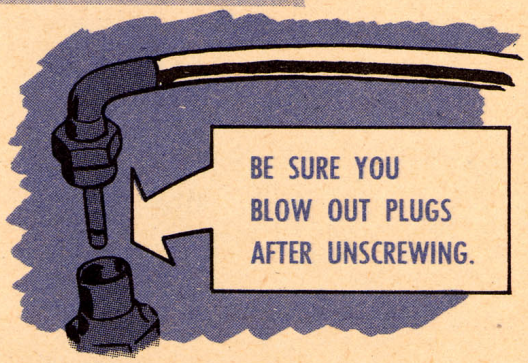
Let it stand for a while to soften up the carbon. Then tap the end of the shaft with a hammer or a block of wood. To keep the shaft from freezing, give it some oil and a tap at every C maintenance service.

If the freeze is still on the shaft after you do this, then you'll have to take the intake manifold off, free the shaft and oil it.

Watch those plug threads

Next time you remove the spark plugs in your M-series tactical wheeled vehicles, it'd be a good idea to blow out the plugs and the wire harness caps.

You see, on these plugs (Ord Stock No. H004-8357724 or H004-7524258), a metal sliver can shear off the connector threads as you screw the cap to the plug. This is particularly true if you skip a thread—cross-thread. These threads are made of soft brass, and it's mighty easy to cross-thread if you're not careful.



When you unscrew the connector, and the sliver with it, the sliver can fall into the plug barrel. Using compressed air is one way to get it out.

You takes y'er chance

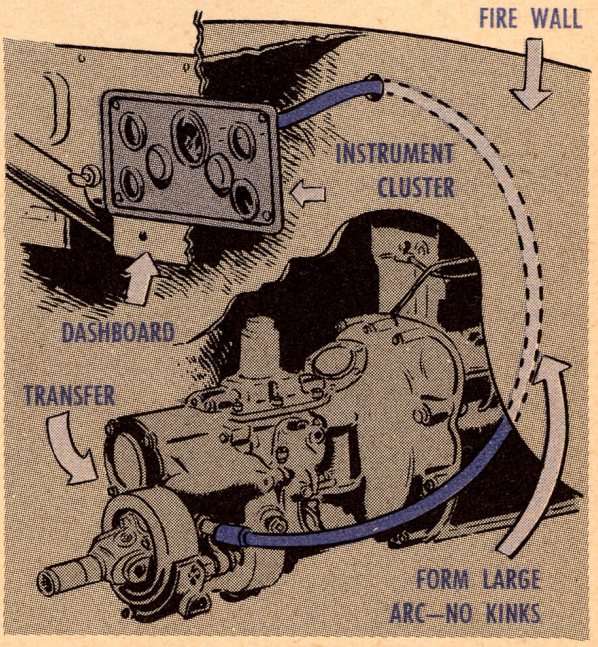
Let's get this problem of what speedometer flexible-shaft-assembly goes on your M38 Jeep knocked for all time.

There are two kinds. Assembly G740-7527480 goes on all M38's with serial numbers below 44033. The assembly includes the casing and core (Ord Stock No. G740-7527483).

Assembly G744-7389881, which is longer than assembly G740-7527480, goes on all M38's with serial numbers above 44032. This one also includes the casing and core (Ord Stock No. G744-7355830).

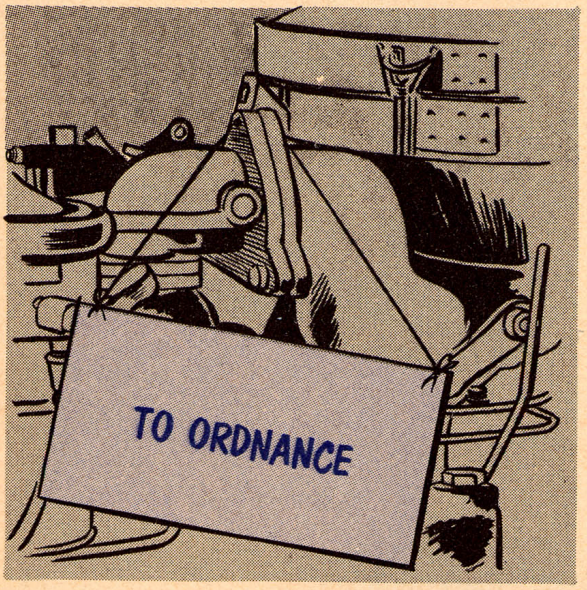
Although the assemblies themselves are interchangeable between any of the M38's, their parts are not because of the different lengths. So, coming right down to it, you've got to get the right assembly on the right Jeep or gives no mileage clicking off.

When installing these assemblies, you attach one end to the transfer case and pass the body of the assembly up thru the firewall where you attach its free end to the speedometer. When fussing with the longer assembly (G744-7389881), make sure the extra length of the assembly forms a large arc on the engine side of the firewall—don't force it into a sharp kink or bend.



TB 9-804-14 (19 Oct 55) gives you the word.

An ordnance job



For those G741 ¾-ton trucks that have serial numbers below T245-2291, you may have some trouble with fuel draining into the brake-master-cylinder and distributor. If so, take her back to Ordnance and have them replace the old air-cleaner elbow-assembly (Ord Stock No. G741-7705789) with the new (Ord Stock No. G741-7413241).

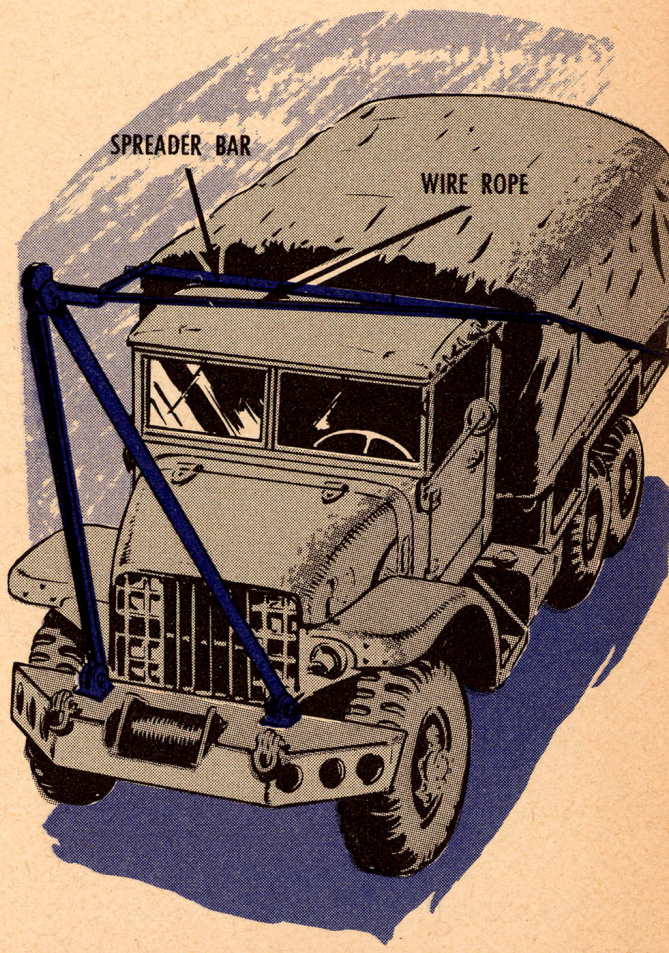
If you happen to come across MWO Ord G741-W2 (11 May 55) in connection with this problem, forget it. This MWO is now on the canceled list.

You oughter jotter

If you're one of those that have been looking high and low for a Kit "A" Frame for your 2½-ton Cargo Truck, 6x6, LWB, w/w, grab your pencil and jot these numbers down so you'll have them handy. Ord Stock No. 41-K-87-300, Ord Dwg No. 7083122, Federal Stock No. 3830-708-3122. This "A" Frame can also be used on ¾-ton and 4-ton cargo trucks. (These are all WWII trucks).

Now if it's "A" Frame Kits for your "M" series vehicles that you're interested in, here they are:

VEHICLE	ORDNANCE DWG NO.	FSN
Truck, ¼-ton, M38 or M38A1	8337113	41-K-87-150
Truck, ¾-ton, M37	8337114	41-K-87-210
Truck, 2½, 5, 10-ton	8337178	41-K-87-335



REDUCING DOPE

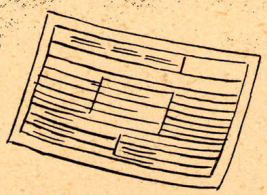
Before any clutterbugs in the area get settled down at their mountains of paper, pull up a row of File 13's and lend an ear.

Could be you're cluttering your maintenance file cabinets with stuff that's not needed. And there's nothing worse than something you don't need—your Saturday night date's kid brother, for instance.

Here's the scoop on how to chop those mountains down to molehills, and how to save yourself a heap o' hard work and good file-cabinet space besides.

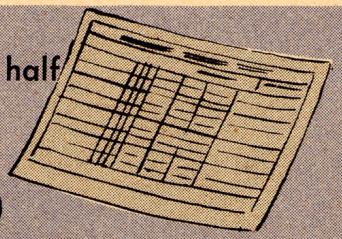
AR 345-292 (2 Aug 55) gives you the scoop on how long to keep your files, but just in case you don't have it handy, here's a rundown of what to do with which when:

A SERVICE WORK SHEET
DD FORM 110 (lower half —preventive maintenance or comparable service forms)



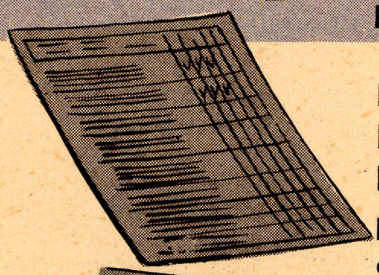
If deficiencies are shown, keep until next **C** service is performed. Daily inspection reports that show no deficiencies will be destroyed when they have been reviewed by responsible supervisory personnel.

DD FORM 110 (upper half —Dispatch portion) and **DA FORM 9-75** (Daily Dispatch Record)



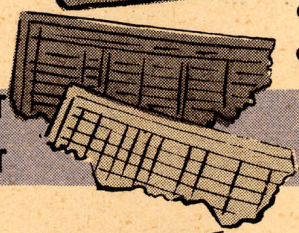
Keep both for two months, then destroy. (Unless file pertains to vehicles involved in accidents and on which action has not been completed by a claims officer.)

B SERVICE WORK SHEET



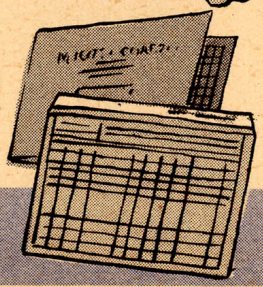
If no deficiencies are shown, it can be destroyed immediately after it's been reviewed by responsible supervisory personnel. If there are deficiencies, keep until completion of next **C** service.

C SERVICE WORK SHEET
D SERVICE WORK SHEET



Keep until completion of next **D** service.

DA FORM 460 (Preventive Maintenance Roster)



Destroy after 6 months.

DA FORM 478 (Organizational Equipment File)

This form goes with the vehicle or equipment to which it belongs.

ARMAMENT

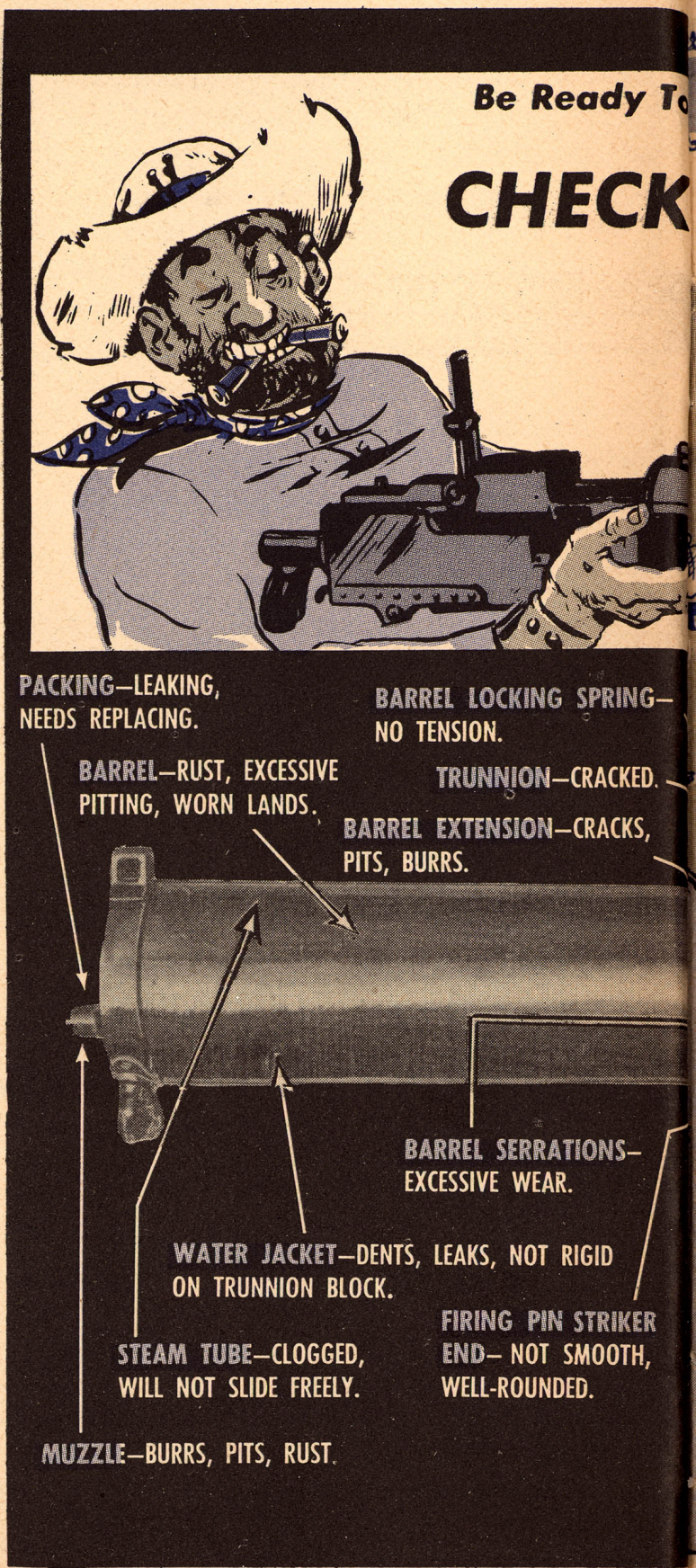
Give your .30 cal. M1917A1 Browning machine gun and yourself a real break next time you've got a few minutes to spare by comparing her with this chart. If any of the parts are like it says here, fix them up, (if you've got the spare parts and have the tools) or get help from Ordnance.

Even one little dent or crack noticed in time prevents the gun from being goofed up later with maybe serious damage.

Look sharp for cracks everywhere. If the gun has fired a good many rounds, double-check the sear and firing pin notches. If they get too rounded or worn, you've got a runaway gun or one that'll fire when it's bumped. The barrel extension and front projection of the lock frame take a beating and will break if timing is incorrect. They usually crack before they break. Look over the water can and connecting steam tubes for cracks and loose fittings.

If the M1919A6 is your baby, look inside the bipod head for dirt or grit. See that the bipod doesn't bind with the front barrel-bearing. Check inside the flash hider for carbon.

Give your gun a good look-see, because as you know, an ounce of preventive maintenance is worth two in the bush.



ARMAMENT

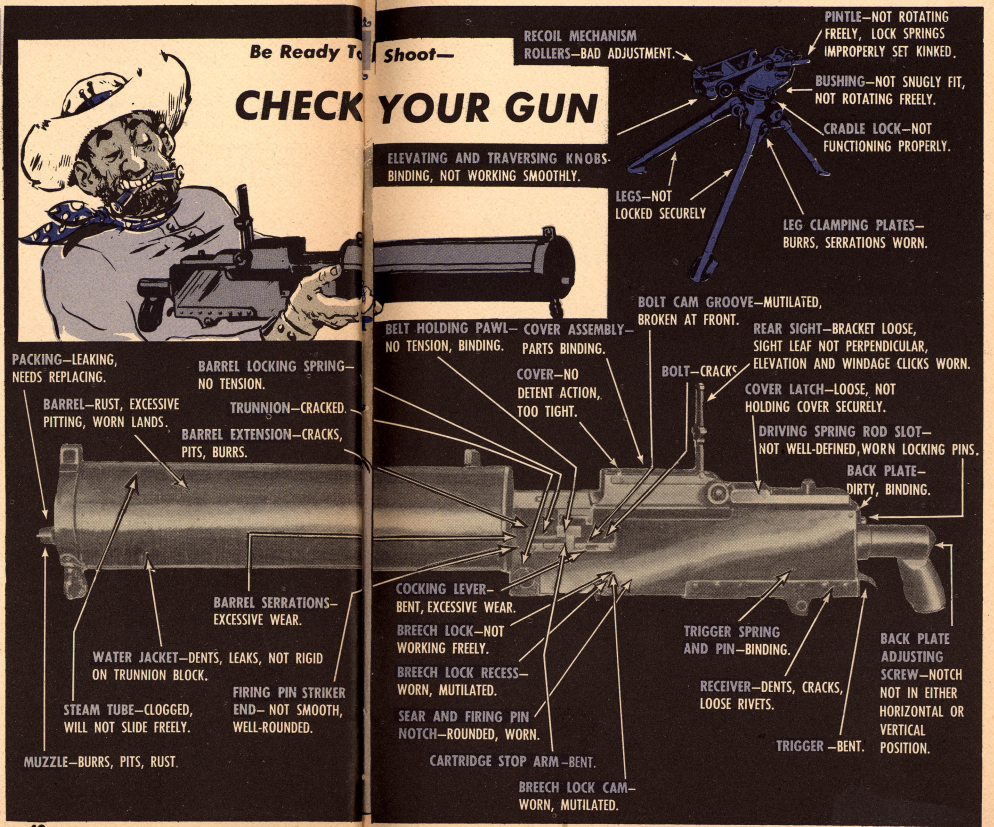
Give your .30 cal. M1917A1 Browning machine gun and yourself a real break next time you've got a few minutes to spare by comparing her with this chart. If any of the parts are like it says here, fix them up, (if you've got the spare parts and have the tools) or get help from Ordnance.

Even one little dent or crack noticed in time prevents the gun from being goofed up later with maybe serious damage.

Look sharp for cracks everywhere. If the gun has fired a good many rounds, double-check the sear and firing pin notches. If they get too rounded or worn, you've got a runaway gun or one that'll fire when it's bumped. The barrel extension and front projection of the lock frame take a beating and will break if timing is incorrect. They usually crack before they break. Look over the water can and connecting steam tubes for cracks and loose fittings.

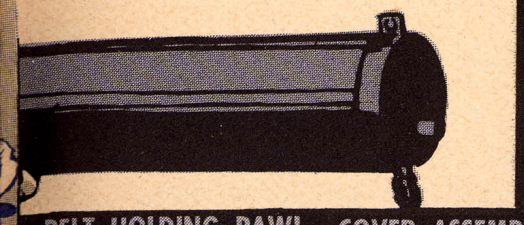
If the M1919A6 is your baby, look inside the bipod head for dirt or grit. See that the bipod doesn't bind with the front barrel-bearing. Check inside the flash hider for carbon.

Give your gun a good look-see, because as you know, an ounce of preventive maintenance is worth two in the bush.



Shoot—

YOUR GUN



ELEVATING AND TRAVERSING KNOBS—BINDING, NOT WORKING SMOOTHLY.

RECOIL MECHANISM ROLLERS—BAD ADJUSTMENT.

PINTLE—NOT ROTATING FREELY, LOCK SPRINGS IMPROPERLY SET KINKED.

BUSHING—NOT SNUGLY FIT, NOT ROTATING FREELY.

CRADLE LOCK—NOT FUNCTIONING PROPERLY.

LEGS—NOT LOCKED SECURELY

LEG CLAMPING PLATES—BURRS, SERRATIONS WORN.

BOLT CAM GROOVE—MUTILATED, BROKEN AT FRONT.

BELT HOLDING PAWL—NO TENSION, BINDING.

COVER ASSEMBLY—PARTS BINDING.

REAR SIGHT—BRACKET LOOSE, SIGHT LEAF NOT PERPENDICULAR, ELEVATION AND WINDAGE CLICKS WORN.

COVER—NO DETENT ACTION, TOO TIGHT.

BOLT—CRACKS

COVER LATCH—LOOSE, NOT HOLDING COVER SECURELY.

DRIVING SPRING ROD SLOT—NOT WELL-DEFINED, WORN LOCKING PINS.

BACK PLATE—DIRTY, BINDING.

COCKING LEVER—BENT, EXCESSIVE WEAR.

BREECH LOCK—NOT WORKING FREELY.

BREECH LOCK RECESS—WORN, MUTILATED.

SEAR AND FIRING PIN NOTCH—ROUNDED, WORN.

CARTRIDGE STOP ARM—BENT.

BREECH LOCK CAM—WORN, MUTILATED.

TRIGGER SPRING AND PIN—BINDING.

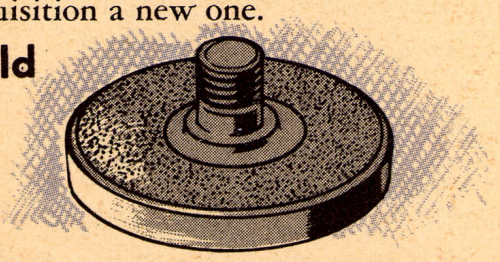
RECEIVER—DENTS, CRACKS, LOOSE RIVETS.

TRIGGER—BENT.

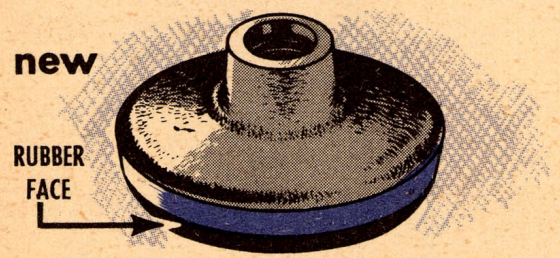
BACK PLATE ADJUSTING SCREW—NOTCH NOT IN EITHER HORIZONTAL OR VERTICAL POSITION.

CHECK YOUR RAMMER

Hold everything until you've checked the loader-rammer on your piece. If you're using Rammer D031-7307416 and it's got external threads, junk it and requisition a new one.



The old style rammer D031-7307416 has an external thread which is easy to damage. So you've got to requisition the new designed rammer, which has an internal thread and a rubber cushion on the face.



But here's the catch. The part number of the new rammer is also D031 7307416. So make sure supply has got the new one, and then make sure you specify on your requisition that the rammer you want has an **internal** thread and a rubber cushion on the face.

It's sorta like having two girl friends with the same name at the same number—one's a blonde, the other a red-head. First, make sure the one you want is there. Then when you ask for her, give a complete description so you'll get what you want.

In case that new rammer isn't available, use rammer D039-6108585 as a substitute until you can get the right one.

YES—BUT!

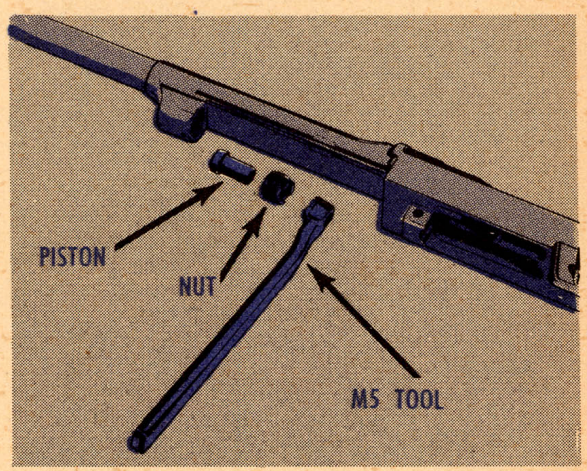
Dear Half-Mast,

What about the gas piston nut on the M1 carbine? Is the using unit supposed to clean 'em, and if so, how come we can't have the Ordnance tool for pulling 'em out? We have found the removing tool, M5, to be inadequate.

Lt H. V. Z.

Dear Lt H. V. Z.,

Cleaning the gas piston nut on the M1 carbine is one of those "Yes—But!" propositions. Yes, the user cleans it—**but** only under the supervision of the organizational artificer, and only when the carbine gets sluggish—failure to extract, for example. Cleaning this nut every time the piece is fired would wear it out entirely too soon. See FM 23-7, pages 92 and 93, para 48 c for the poop on this.



As for the M5 tool being inadequate, if you find a weapon in such bad shape that this tool won't easily remove the cylinder nut, you'd better send it to Ordnance for repair.

Half-Mast

A PEEP WILL DO IT

Dear Half-Mast,

Will you give me the authority to quote so I can either requisition bore-sighting equipment for my 76-mm gun on the M41A1 tank or else get Ordnance to do the job?

It tells how to boresight right in TM 9-730 for the tank and gun, so I must be supposed to do it. But my requisitions for bore-sighting equipment keep bouncing back, and they keep telling me that the stuff is not authorized on the organizational level. What do I do?

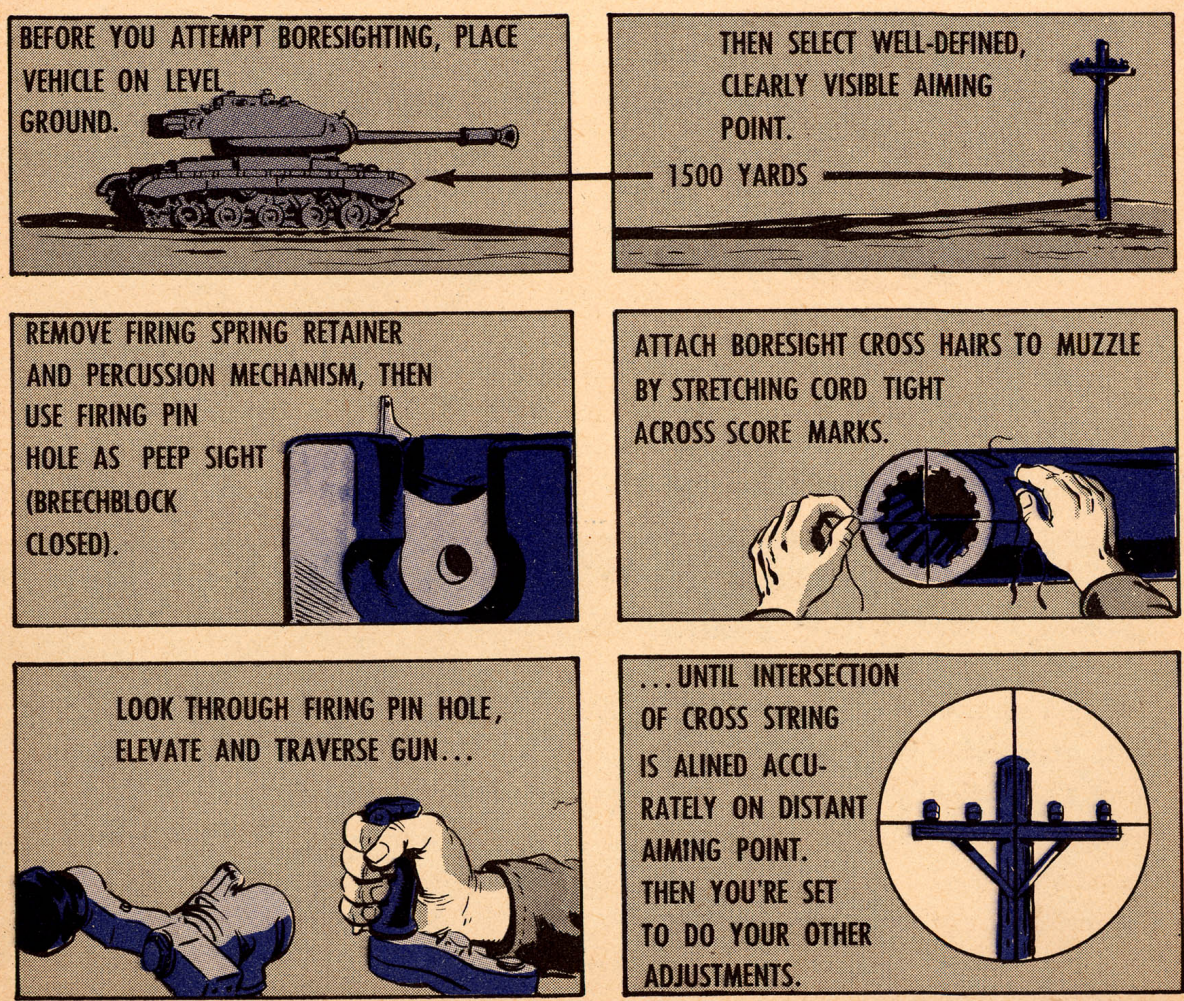
M Sgt F. S. K.

Dear MSgt F. S. K.,

Breech and muzzle bore sights are no longer 1st and 2nd echelon issue for combat vehicle mounted, direct fire, primary weapons up to and including 90mm gun (except the 40mm guns).

Take a look at TM 9-730, page 348, para 272. It tells you how to boresight by using the percussion mechanism firing pin hole and bulk cord fastened to tube muzzle for boresight lines.

Half-Mast



NOT FOR TOWING

Dear Sgt Dozer,

Our commercial type dumps and International Harvester garbage collection trucks don't have towing pintles on the rear end and aren't to be used for towing.

We have had cases, however, of some meathead dropping a chain or cable over the rear cross-member of the frame and trying to tow with it.

The result? Bent frames, because they're just not designed for towing.

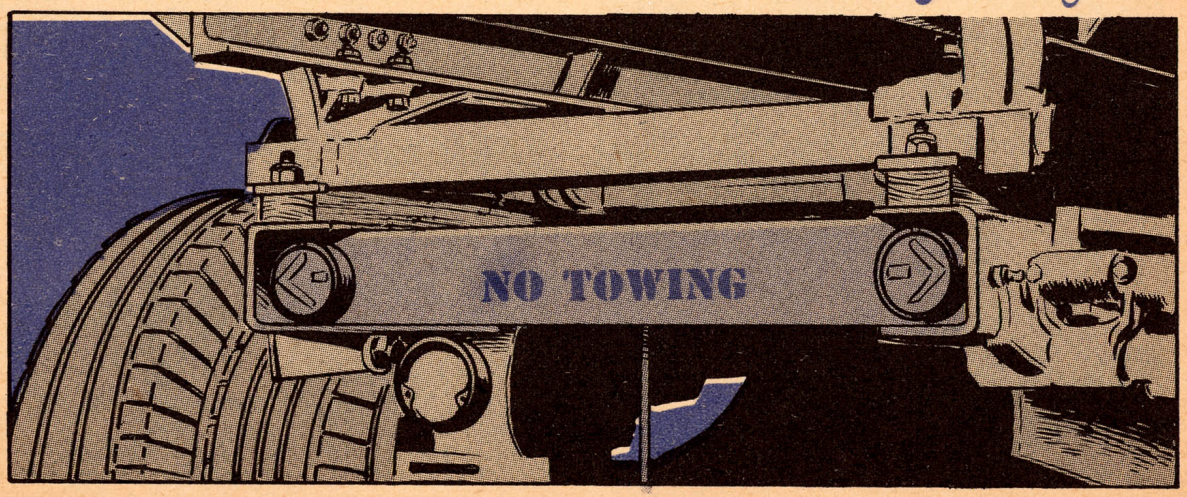
To keep this from happening, we made up a 1-in stencil and painted ***NO TOWING*** *on the cross member. Since doing that, we haven't had a bent frame.*

MSgt R. M. H.

Dear MSgt R. M. H.,

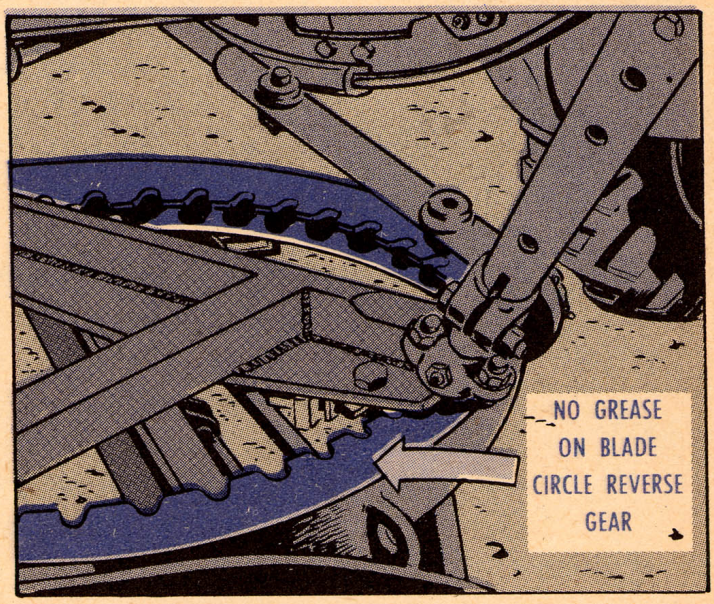
Darn good idea—but only as a last resort. Anybody who'd try to tow with one of those vehicles evidently didn't get the right kind of training or he'd know better. Well-trained and competent operators shouldn't need signs to tell 'em what not to do.

Sgt Dozer



NO GREASE HERE

A lot of fellers have the old-fashioned idea that you ought to grease the blade circle reverse gear on those Engineer motor graders. Whether you're driving a Caterpillar, Warco, Rome Adams or Austin-Western grader, remember not to grease this gear. Here's why:



The blade circle reverse gear used to be greased, but the indentions of those gear teeth became handy resting places for dirt and sand. This material acted as an abrasive and caused extreme wear to the drive- pinion gear. That's why the gear isn't greased nowadays, so keep this one in mind.

ENGINEERS' ROUND-UP

Here are some more pubs you can add to your pile:

TECHNICAL MANUALS

5-5128 Welder, elec-arc-mtr-drvn, 3-hp, 60-cy, Hobart mod ML-304-P, 10 Nov 55

5-9507-1 Crane-Shvl, PU, rev, trk-mtd, Bay City Mod 180-T66, 6 Oct 55

5-9517 Crane-Shvl, PU, rev, trk-mtd, Gar Wood Buckeye mod M-20-A, 4 Oct 55

5-9586 Conveyor, drag type, piler, Barber-Greene mod 681, 26 Oct 55

5-2079 Pump, deep well, 200-GPM 200-ft hd, Johnston Pump Co mod 6EC, 21 Oct 55

5-9597 Conveyor, drag type, Haiss mod 484 PM, 26 Oct 55

5-9599 Conveyor, drag type, Haiss mod 486 PM (Ser Nos. K12438 up), 25 Oct 55

5-5315 Gen Set, elec, port, dsl, drvn, Buda mod DA60-A3-CE, 20 Oct 55

5-2123 Pump, horiz, stm-drvn, 25-GPM, American Marsh mod, 9 Dec 55

5-9095 Ice plant, 1-ton, equipment only, Reco mod, 17 Nov 55

5-5240 Gen, stm, oil-fired, port, Cyclotherm Corp mod C-12, Dec 55

5-9128-1 Shop, mobile, GPR, Set #1, hvy, 12-ton, semi-mtd, Couse mod MED, 7 Nov 55

TECHNICAL BULLETINS

5-5218-1 PMS, eng, gasoline, Hercules mod IXBER, 29 Nov 55

5-1071-1 Paver, concrete, Foote mod 34-E, 5 Dec 55

5-5001-1 PMS, gen set, elec, stat, dsl-drvn, Consolidated Dsl Elec mod 1617, 29 Nov 55

5-6045-1 Whirler, plate, litho offset, mtr-drvn, Lanston Monotype mod, 9 Dec 55

5-5050-1 Gen set, port, dsl drvn, Cummins mod H6, 7 Dec 55

5-5386-1 PMS, gen, elec, port, Kohler mod 800-M-21, 5 Dec 55

5-9225-1 Trailer, full, lo-bed, 8-ton, Fontaine mod T8-105, 9 Dec 55

5-9232-1 PMS, sawmill, trlr-mtd, dsl-drvn Jackson Lumber Harvester mod RM-B and RM-J, 13 Dec 55

5-5027-1 PMS, gen set, port, gas-drvn, Homelite mod C-8, 13 Dec 55

5-9584-1 PMS, conveyor, drag type, Godfrey mod SP-B-2, 29 Nov 55

LUBRICATION ORDERS

5-9085 Sweeper, rotary, 3-whl, Meili-Blumberg mod 53M, 14 Nov 55

5-9244 Ice plant, 1-ton, skid-mtd, Victor mod, 14 Nov 55

5-5247 Engine, gasoline, Allis-Chalmers mod B-15, 10 Nov 55

5-5342 Compressor, air, skid-mtd, for diving outfit LeRoi mod 60G4-A1, 30 Nov 55

5-5153 Gen set, dsl drvn, Chicago Pneumatic mod 612 CPS, 28 Nov 55

5-4033 Sharpener, detach rock drill bit, elec mtr drvn, Ingersoll-Rand mod JBD-60, 29 Nov 55

5-5023 Gen set, elec, port, Buda mod 8DCS-1125, 1 Dec 55

5-5238 Engine, gasoline, Ford mods 7HNN, 8MNN, 1 Dec 55

5-5267 Gen set, elec, port, Onan mod 30JT-1KE/550N

5-9225 Trailer, full, lo-bed, 8-ton, Fontaine mod T8-105, 29 Nov 55

5-9317 Hoist, pneumatic, sgle drum, 1-ton pull, Ingersoll-Rand mod HU, 6 Dec 55

5-9355 Plow, snow, rotary, gas-drvn, Snow Master mod BH-10, 28 Nov 55

5-9396 Pump, recharg, C-O-Two Fire Equipment mod SC-1, 6 Dec 55

5-1129 Distributor, wtr, 1000-gal cap, Vic mod 73, 29 Nov 55

5-9179 Ditcher, plow type, East Texas Eng mod 56S, 7 Dec 55

5-9623 Conveyor, drag type, Barber-Greene mod 92, 28 Nov 55

5-1052 Stabilizer, soil, dsl drvn, Harnischfeger mod LA-88, 7 Dec 55

MODIFICATION WORK ORDERS

5012-2 Gen set, elec, port, Hollingsworth mod JH3, 7 Dec 55

3515-1 Truck, fire, all Seagrave mods using KB Series pump, 12 Dec 55

5312-1 Gen set, elec, port, Hercules mod HC-30W-400, 5 Jan 56

6121-1, C2 Duplicator, spirit process, map repro, Ditto mod D-22, 7 Dec 55

ENG 7 & 8's

9448 Trlr, 2-whl, util, pole type, 2½-ton, Kentucky mod, 28 Oct 55

1160 Distributor, wtr, trk-mtd, 1000-gal cap, Littleford mod M-75, 14 Nov 55

9085 Sweeper, rot, 3-whl, trlr-mtd, Meili-Blumberg mod 53 M, 14 Nov 55

1055 Subgrader, form riding, Garwood mod FG-24, 8 Nov 55

1154 Kettle, asph repair, trlr-mtd, Littleford mod 84-HD-3, 18 Nov 55

2031 Pump, cent, 60-GPM 125-ft hd, Ralph B. Carter Co mod 4 MHW, 14 Nov 55

2087 Pump, cent, 116-GPM 25-ft hd, Marlow mod 17-W, 14 Nov 55

5081 Gen set, elec, port, Kohler mod 5MH81, 3 Nov 55

ENG 7, 8 & 9's

6600-3 Transit, Keuffel and Esser mod P5136, 3 Nov 55

2070, C1 Distillation unit, gas-drvn, trlr-mtd, 85 GPM, Cleaver-Brooks mod DVC-8M, 16 Dec 55

9207 Trlr, full, lo-bed, 60-ton, Dorsey mod MT-60W, 14 Nov 55

9301 Winch, towing, Hyster mod D8L, 1 Dec 55

5117 Gen set, elec, port, Bogue Elec mod 2388A, 15 Dec 55

5390 Compressor, air, skid-mtd, 60-cfm, Worthington mod 256-E, 17 Nov 55

5655 Gen set, port, gas-drvn, Onan mod 10 HQ-3R/552B, 15 Nov 55

6030 Press, proving, Rutherford Machine Co mod 2, 16 Nov 55

9207, C1 Trlr, full, lo-bed, 60-ton, Dorsey mod MT-60W, 5 Jan 56

Good common sense Is a must in . . .

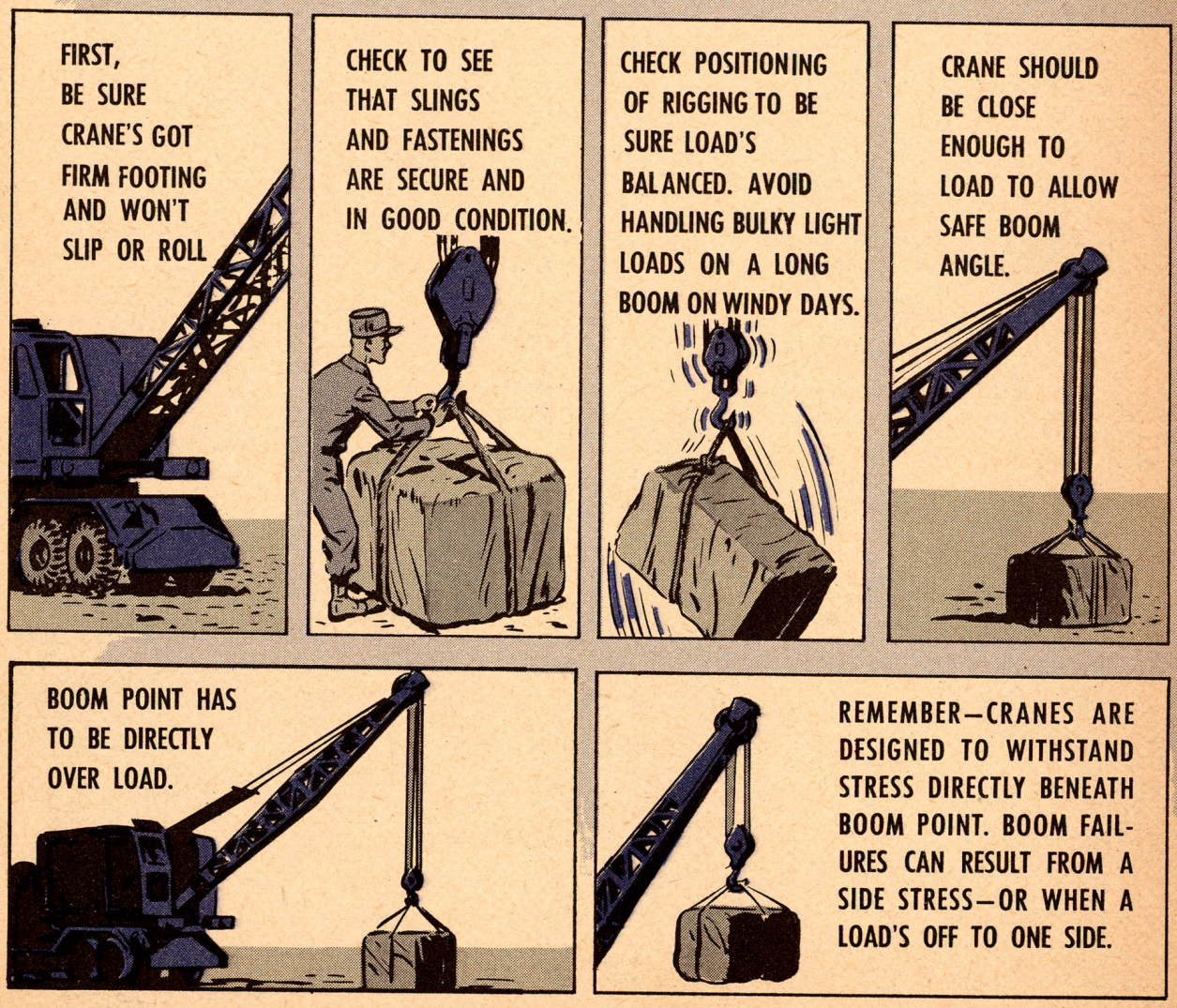
CRANE OPERATION

You'd be surprised how careful operation can add to a crane's life. It makes no difference what kind of a rig you're running, the operator and signal man are the guys who determine what kind of service your crane'll put out as the hours pile up.

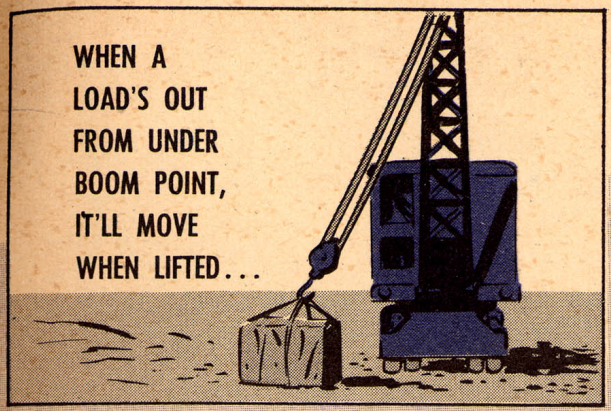
Yep, careful operation's got just as much to do with good preventive maintenance as making adjustments, tightening nuts and bolts and doing the before, during and after operation services.

When you use a crane, it's just like using a hand tool. You get the right one for the right job. Your machine's got to be able to make the lift or do the job you ask. And don't forget to make good use of your outriggers. Extend 'em for safety's sake if you're approaching the equipment's operating limits.

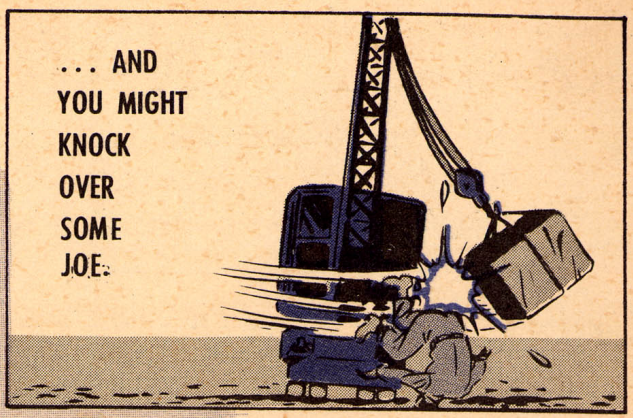
After you've selected the right crane, here are a few things you've got to do before making a lift:



WHEN A LOAD'S OUT FROM UNDER BOOM POINT, IT'LL MOVE WHEN LIFTED...



... AND YOU MIGHT KNOCK OVER SOME JOE.



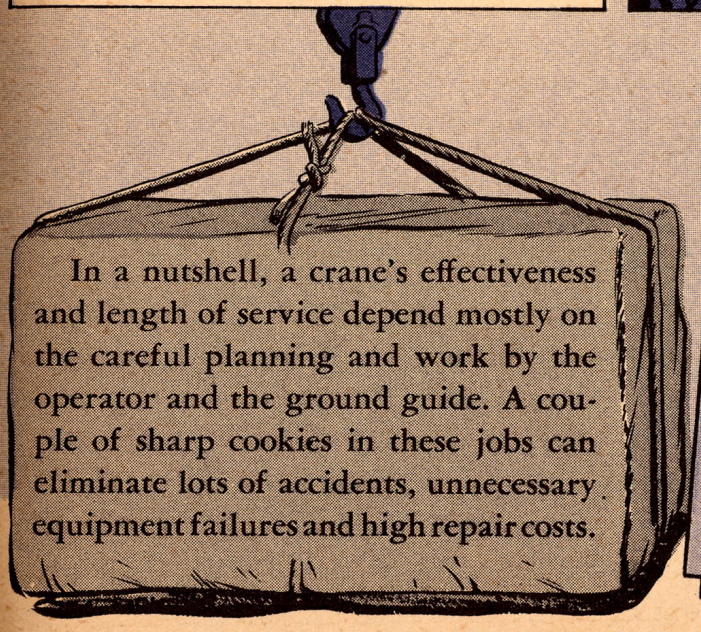
WHEN POSITIONING THE CRANE, BE SURE SWING CLUTCH DRIVE IS ENGAGED—AND SWING BRAKE OR LOCK IS NOT ENGAGED. ALSO SEE TO IT THAT TRUCK LOCK OR BRAKE IS ENGAGED.

AFTER THE OPERATOR TIGHTENS UP A LITTLE ON THE LOAD, THE HOIST LINES SHOULD BE VERTICAL. MAKE ALLOWANCE FOR HEAVY LOADS THAT CAUSE BOOM POINT TO SWING OUT.

REMEMBER

NEVER LIFT HEAVY LOAD WITH SWING-BRAKE OR LOCK ENGAGED, BUT DO ENGAGE SWING-CLUTCH-DRIVE. THIS GIVES OPERATOR COMPLETE CONTROL OF HIS MACHINE.

OPERATOR SHOULD RELY ON SIGNAL MAN DURING OPERATION.

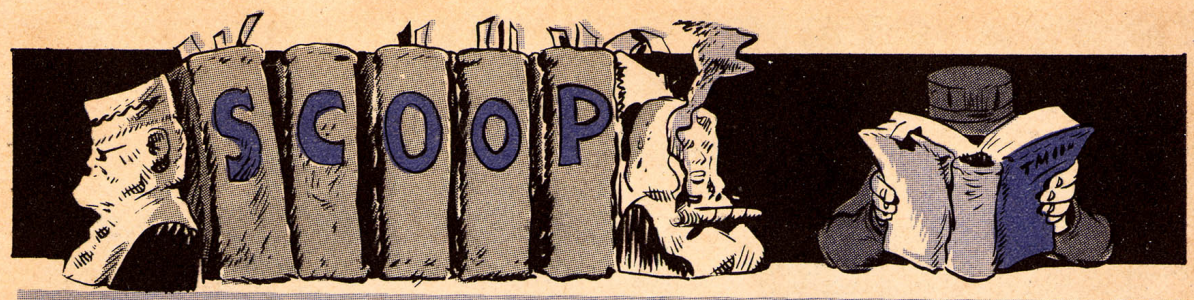


In a nutshell, a crane's effectiveness and length of service depend mostly on the careful planning and work by the operator and the ground guide. A couple of sharp cookies in these jobs can eliminate lots of accidents, unnecessary equipment failures and high repair costs.

HANDY REFERENCES

A couple of standbys for crane riggers are TM's 5-725 and 5-727. They'll give you the real scoop on rigging plus details on approved methods of lifting with rope, wire and chains and the use of block and tackle.

Yep, these manuals are real dandies, so best you latch on to copies of 'em pronto. You'll never be hurtin' for crane riggin' info if you have TM's 5-725 and 5-727 handy.



Here's a list of additional Official Publications on Ordnance Equipment which are of interest to a lot of you.

SUPPLY MANUALS

ORD 5-3-4 List all items, price guide—veh parts Nov 55

ORD 7 SNL A-70, C2 Mortar, 4.2-in M2; cart, 4.2-in mortar, ammo M1A1 Dec 55

ORD 7 SNL A-85, C3 Mortar, 4.2-in M30 (T104), mt, mortar, 4.2-in M24 (T61) Jan 56

ORD 7 SNL B-50 Rifle, cal. .30-06, Winchester, mod 70, spec match grade Jan 56

ORD 7 SNL C-20, C1 Howitzer, pack, 75-mm, M1A1; crrge, howitzer (pack), 75-mm, M8 Dec 55

ORD 7 SNL C-74, C1 (TO 11W2-5-5-4) Rifle, 75-mm, M20, T21E12 Dec 55

ORD 7 SNL C-77, C1 Rifle, 105-mm, M27, M27A1; mt, rifle, 105-mm, M75, M75A1 Dec 55

ORD 7 SNL C-84, C1 Gun, 76-mm, M48 (T124E2); crrge, gun, 76-mm, M29 (T66) Dec 55

ORD 7 SNL C-90, C2 Launcher, rkt, multi 4.5-in M21 (T123) Jan 56

ORD 9 SNL C-93 Rifle, 106-mm, M40; mt, 106-mm rifle, M79 Dec 55

ORD 7 SNL D-24, C1 Gun, 155-mm, M2, M2A1; crrge, gun, 155-mm, M1; platform, firing, 155-mm gun, M1 Dec 55

ORD 7 SNL D-31, C3 Howitzer, 240-mm, M1; crrge, howitzer, 240-mm, M1; wagon, cannon transp M2A1; wagon, crrge transp M3A1 Jan 56

ORD 7 SNL D-65, C1 Launcher, 762-mm rkt, trk mtd, XM289 Dec 55

ORD 7 SNL F-36 Watches, pocket, stop, wrist Nov 55

ORD 8 SNL F-204, C1 Quadrant, elev M1, M1A1 Dec 55

ORD 8 SNL F-216 Mt, 'scope, M25, M95 Dec 55

ORD 9 SNL F-235, Vol 5 Peris, M13, M13B1, M14, M14A1, M17 Dec 55

ORD 7 SNL F-238, C1 (TO 49A1-2-24) Binoc, M7, M15A1, M16, M17A1, Mk 21, Mk 21A1 Dec 55

ORD 8 SNL F-238 (TO 49A1-2-3-4) Binoc M7, M15A1, M16, M17A1, Mk21, Mk21A1 Nov 55

TECHNICAL MANUALS

TM 9-761A, C2 SP twin 40-mm gun M42 (T141) Dec 55

TM 9-1590, C1 Fuze Setters M14, M22, M23, M25, M27 Jan 56

TM 9-1755BB, C1 6-cyl, horiz oppos air-cool gaso eng (Contin Mod AO-895-4) Dec 55

TM 9-1946 Demolition materials Nov 55

TM 9-1955-2 Jato M4 (T9E2) Jan 56

TM 9-1981, C2 (TO 11A10-1-1) Mil pyrotechnics Dec 55

TM 9-3026-1 Improved AA FCS T38—operation Dec 55

TM 9-5068 Tracking station van semitrlr XM323 (Corporal Type II guided miss sys) Nov 55

TM 9-5074 Missile test set van body (Corporal Type II guided miss sys) Nov 55

TM 9-3026-3 Improved AA FCS T38—schem diagrams Dec 55

TM 9-6081-7 FCS T38, rep rebld computer T27E2, peris T33, wind resolver unit 7630042 Oct 55

TM 9-7220 SP 8-in howitzer T108 May 55

TM 9-8202 6-ton 2-whl trlr converter dolly M197, 8-ton 2-whl trlr converter dolly M198 Dec 55

TM 9-8627, C1 (TO 38X-1-221) Elec equip (Delco-Remy) Nov 55

ORDNANCE MODIFICATION WORK ORDERS

C82-W4 Combo gun mt M76 (T138E1): Replace gun elevat cyl assy 7963260 w/improved gun elevat cyl assy 7982525 **F** Dec 55

C82-W5 Combo gun mts M76 (T138E1), M76A1 (T138E2): Provide improved type elevat screw 8338953 in machinegun elevat, travers mech assy 7984505 of coaxial machinegun mt **F** Dec 55

D28-W34 90-mm AA gun mts M1A1, M1A2: Provide batteries to insure op of breakaway system at all temps **F** Dec 55

D32-W21 120-mm gun M1, 120-mm AA gun mt M1A1: Modify cradle assy to provide accessible means for lubricat firing lever interlock assy **F** Dec 55

D38-W17 90-mm AA gun mounts M2, M2A1: Provide means of prevent mount from jack-knifing when backing up **F** Jan 56

D48-W16 75-mm gun T83 series: Provide metal improved breechblock **F** Jan 56

G260-W7, C1 M75 (T18E1): Replace final drive components, attaching parts **F** Jan 56

SUPPLY BULLETINS

SB 9-127 Recoverable, salvageable items of RCAT materiel **O** Dec 55

SB 9-128 Maint-in-storage of CD-500 Series, CD-850 series transm **D** Jan 56

SB 9-126 36-pass 4x2 integ bus (Twin Coach mod F-32-F): Revised servicing instru for oil filler breather assy **O** Dec 55

TECHNICAL BULLETINS

TB 9-717A-1 SP 105-mm howitzer T98E1: Identifica of 12- and 13-tooth final drives **O** Dec 55

TB 9-1860-2, C4 Eval erosion, damage in cannon bores **D** Jan 56

TB 9-2830-104 Half-track veh: Reclaim bogie roller (road whl) assy **D** Dec 55

TB 9-7012-2 M48 Tank: Provide instru for maint, rep compen idler spindle and bore **O** Jan 56

TB 9-8024-1 2½-ton trks M135, M211, M215, M217, M220, M221, M222: Precautions—accident self-engage auto transm **O** Jan 56

TB ORD 444-11, C1 2½-ton trk-mtd Sig rep shops M185, M238: Instal load **D** Nov 55

TB ORD 597-34 (TO 34Y2-19-13) Press-jet steam cleaner (Clayton mod BKRO-600) (4940-473-6218): Rebuild standards **D** Dec 55

TB ORD 597-35 Vapor-type stationary Degreaser (Randall Mfg Co mod U-42-E) (4940-244-4897): Rebuild standards **D** Dec 55

TB ORD 605, C1 (TO 11W2-1-2) Hydropneu recoil mechs of fld, combat veh, AA arty: Inspect proced to determine serviceability of mech containing emulsif oil **O** Dec 55

TB ORD 620 Hyd oil pump M3 (4930-449-7166): Cleaning oil reservoir **O** Dec 55

TB ORD 621 (TO 36A5-1-508) Tandem hitch, 2540, 735-8343 (8-H-1826): Instal on ¼-ton trks MB, GPW, M38, M38A1 **O** Dec 55

TB ORD 624 AA FCS M33/T33, cable systems M1A1, M1A2, M3A1—cable assy rep proced **D** Jan 56

TB ORD 625 All tact whl vehs: Cleaning power train case ventil valves **F** Jan 56

TB ORD 626 Vehs with press fuel sys: Eliminate excessive fuel tank press buildup **O** Jan 56

LUBE ORDERS

LO 9-U3 Mortar 60-mm M19; mt, mortar 60-mm M5 Nov 55

LO 9-U702 Buffer: Tire, tube, flex shaft, ptbl, ½-hp, 110-v, 60-c, sgle-ph, 1725-rpm (Mall Tool Co mod 19390) Oct 55

LO 9-U703 Buffer: Tire, tube, flex shaft, ptble, ½-hp, 110-v, 60-c, sgle-ph, 1725-rpm (Albertson & Co Inc mod 1020); buffer: Tire, tube, flex shaft, ptble, ¾-hp, 110-v, 60-c, sgle-ph, (Albertson & Co Inc mod 1080) Oct 55

LO 9-U704 Lathe, armature, undercutter: 60-c, single-ph (Frank N. Wood mod B-10) Oct 55

LO 9-U705 Drill mach, uprt: Flr type, ¾-hp, 110-v, 60-c, sgle-ph, 1-in cap, 18-in swing, morse taper No. 3 spdl, std tilting table (Buffalo Forge Co mod 18K) Dec 55

LO 9-U706 Grinder, flex shaft, ptble, 110-v, 60-c, sgle-ph, 3-speed (w/equip) (Wyzenbeck & Staff Inc mods 27A, 27AC) Oct 55

LO 9-U707 Shears, metal cut, elec: 115-v, univ cur, 18-gage cap (Stanley Works mod MM) Oct 55

LO 9-U708 Honing mach, horiz: Bench type, 115-v, 60-c, single-phase, cap 0.720 to 2.000-in (min) (Ammco Tools Inc. mod 2600) Nov 55

LO 9-U709 Drill mach, uprt, bench type, ½-hp, 115-v, 60-c, single-phase, ⅝-in cap (Delta mods 17-305, 17-306) Nov 55

LO 9-U711 Shears, metal cut, elec: 115-v, univ cur, 18-gage cap (Stanley Works mod U 218) Nov 55

LO 9-U712 Hammer, pneu, chipping: 1⅛-in bore, 4-in stroke (Chicago Pneu Tool Co No. 4-RV) Nov 55

LO 9-325 Howitzer, 105-mm, M2A1; carrge, howitzer, 105-mm, M2A1, M2A2 Nov 55

LO 9-7420 Trtr, cargo, M8E2 Nov 55

LO 9-8002 Truck, trtr, 10-ton, 6x6, M123 Dec 55

LO 9-9047-1 Grinder, tool, cutter, bench type, ¼-hp, 110-v, 60-c, sgle-ph, w/accys (Roan Mfg Co, Devere Co mod 20) Oct 55

LO 9-9072-2 Drill mach, uprt: Bench type, ⅓-hp, 115-v, 60-c, sgle-ph, ⅝-in cap (Famco Mach Co mod 80) Oct 55

FIRING TABLES

FT 81-Z-2 (Abridged) Mortar, 81-mm, M29, M1 on mts, mortar, 81-mm, M23A3, M23A1, M23, M4, M1; firing shell, HE, M362 (T28E6) w/fuze, pd, M519 (T319), fuze, VT, M517 (T178E3) fin, M141 (T12) cartridge, ignition, M66 (T77E1) primer, percussion, M71 (T68E1) increment, propellant, M5 (T7) Oct 55

FT 105-AP-2 (Abridged) Rifle, recoil M27A1 firing cart HEP-T, M345 Oct 55

FT 106-B-2 (Abridged) Rifle, 106-mm, M40 firing cart HEP-T, M346 Oct 55

FT 240-C-1, C7 Howitzer, 240-mm, M1 firing shell, HE, M114 Oct 55

NOTE—On TB's, SB's and MWO's:
O—Organizational Maintenance
F—Field Maintenance
D—Depot Maintenance

Connie Rodd's BRIEFS

Halt, stop, cease

Cooling system cleaning compound (Fed Stock No 6850-272-9327) eats into metal and brings on rust when used too much. Use this stuff only when your radiator's clogged or when there's lots of rust floating around. So, lay off the fall and spring use—please.

For good measure

For the right amount of reserve recoil oil in the 120-mm M1 gun, don't be fouled up by page 5 of TM 9-380, where it says the reserve in the replenisher is one pint. The correct amount of reserve oil is 12 ounces, like it says on page 126 of the same TM.

Keep it straight

You don't want it bent, do you? OK, then, next time you're down visiting your Ordnance support outfit, have them fabricate a reinforcer for your G749 2½-ton truck's accelerator pedal to keep the thing straight. MWO Ord G749-W31 (26 Oct 55) gives them the word to go ahead with the job.

Patches

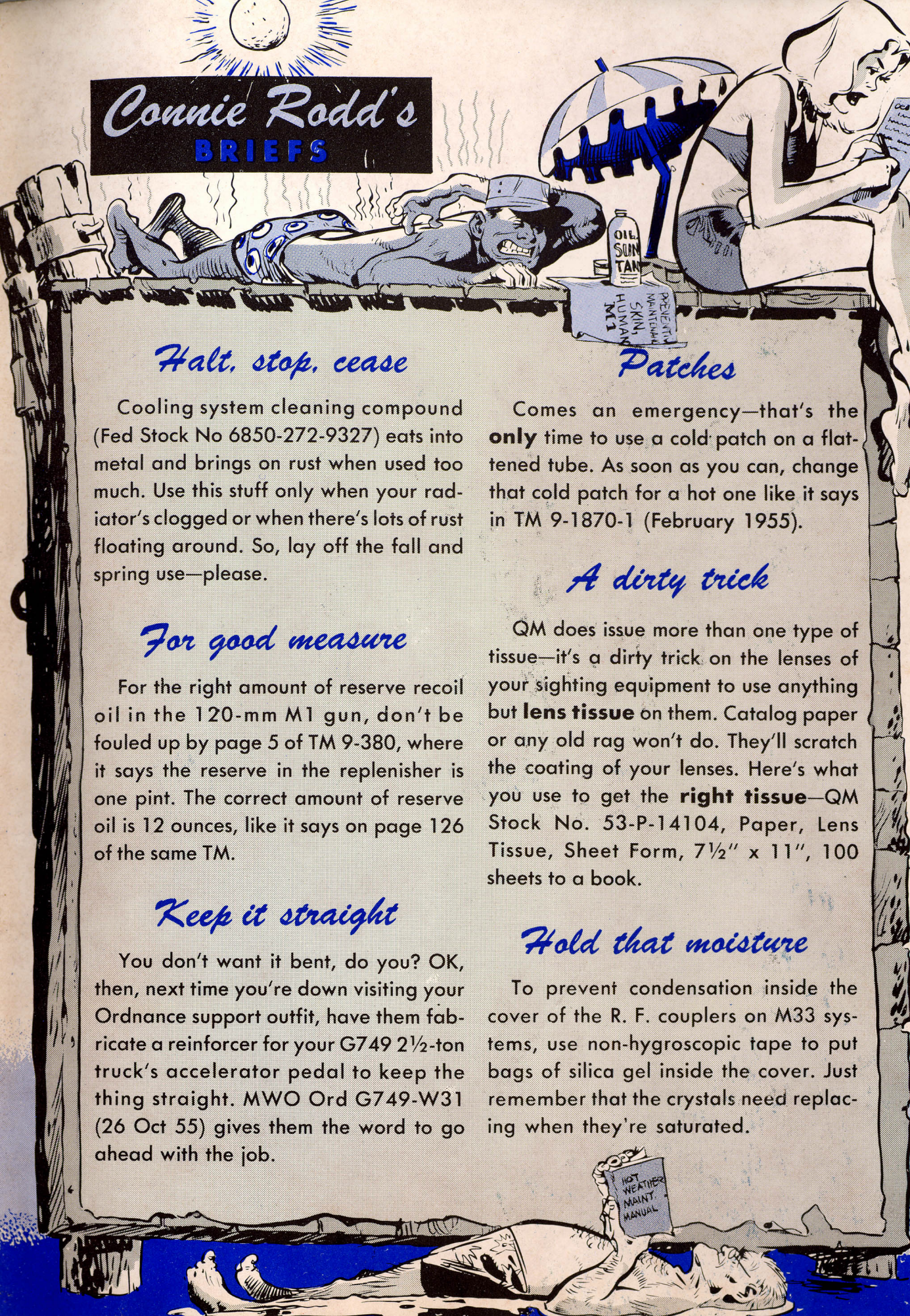
Comes an emergency—that's the **only** time to use a cold patch on a flattened tube. As soon as you can, change that cold patch for a hot one like it says in TM 9-1870-1 (February 1955).

A dirty trick

QM does issue more than one type of tissue—it's a dirty trick on the lenses of your sighting equipment to use anything but **lens tissue** on them. Catalog paper or any old rag won't do. They'll scratch the coating of your lenses. Here's what you use to get the **right tissue**—QM Stock No. 53-P-14104, Paper, Lens Tissue, Sheet Form, 7½" x 11", 100 sheets to a book.

Hold that moisture

To prevent condensation inside the cover of the R. F. couplers on M33 systems, use non-hygroscopic tape to put bags of silica gel inside the cover. Just remember that the crystals need replacing when they're saturated.



WAIT
IT MAY STILL HAVE
mfw
SALVAGE
mfw
YOUR NEW VEHICLE HAS A MANUFACTURER'S WARRANTY THAT'S GOOD FOR ONE YEAR OR 4000 MILES... WHICHEVER COMES FIRST...CHECK IT!!
SEE PAGE 2 FOR DETAILS